For Information Presented in the Response to
The Section 308 Request on
Deerbrook a/k/a Valley Day School
The Estates at Huntington Valley
The Woods at Northampton

I certify that the foregoing responses on the above-referenced project(s) were prepared under my direction or supervision and that I have personal knowledge of all matters set forth in the responses. I certify that the responses on the above-referenced project(s) contained in this submission is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Rick Buchholz

## SECTION 308 RESPONSE FORM

Project/Property Name: Deerbrook a/k/a Valley Day School
Property Location: Mill Road
Yardley, PA
Legal Name of Entity Undertaking Development: K. Hovnanian at Lower Makefield I, LLC
Address: 1170 Wheeler Way, Suite 200  Langhome, PA 19047
Telephone Number: 215-478-9400
CEO: Barry Feldman; See General Objection "L"
Relationship to Hovnanian Enterprises, Inc.: See General Objection "M"
Responsibility for Project (Owner, Developer, Contractor, etc.) Developer
Date of commencement of construction activity: 2/2004
Current stage of construction: Building construction, infrastructure complete, all paved
If earth disturbance activities are completed, date of completion: N/A
Date of local/county approval for erosion and sediment control: 12/4/2003
Copy of local/county approval attached?  Yes  No (If "yes," see Attachment 1)
NADEC D. CAL. PARIODS13
NPDES Permit No.: PAR10D513  Date of NPDES Permit: 2/21/2002
Copy of NPDES Permit attached?  Yes  No (If "yes," see Attachment 2)
Copy of signed NPDES application attached? Yes \(\sigma\) No (If "yes," see Attachment 3)
Copy of periodic self-inspection reports attached?  Yes  No (If "yes" see Attachment 4)
Explanation of reasons why no NPDES permit if applicable: N/A
Name of receiving water and location of stormwater discharge: Brock Creek, Buck Creek
If discharge to a storm sewer, name of municipal operator, location of discharge into storm sewer, and name of receiving water (if known) N/A
Additional Information



## **BUCKS COUNTY CONSERVATION DISTRICT**

924 TOWN CENTER NEW BRITAIN, PA 18901-5182

In Pursuit of Environmental Excellence

December 4, 2003

Quaker Group 1103 Laurel Oak Road, Suite 105 Voorhees, NJ 08043

SUBJECT: VALLEY DAY SCHOOL SITE- RESIDENTIAL SUBDIVISION

TMP# 20-34-44

PLAN DATED: 9-10-03 SHEET NUMBERS: 6-8 TOTAL ACREAGE: 15.90 ACRES T.B.D.: 9.76

LOCATION: MILL ROAD

LOWER MAKEFIELD, BUCKS COUNTY

To Whom It May Concern:

This is a review by the Bucks County Conservation District (BCCD) of the erosion and sediment pollution control plan created for the above referenced site. Any revisions made to these approved plans must be submitted to BCCD for review and approval.

The plan appears adequate for erosion and sediment pollution control and meets the minimum requirements of the Pennsylvania Department of Environmental Protection (PA.DEP) Rules and Regulations, Chapter 102 Erosion Control, relating to the Pennsylvania Clean Streams Law.

BCCD requires a notification of three (3) working days prior to site disturbance in order to perform the necessary erosion and sediment pollution control inspections. As the erosion and sediment pollution controls are implemented, they must be maintained and checked frequently. Failure to begin earthmoving within two (2) years will require a resubmission and review of the erosion and sediment pollution control plan.

If you have any questions regarding this letter, contact the BCCD office at the above phone number.

Respectfully,

Ann C. Sheffer

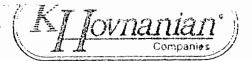
Soil Conservationist

/E&S/municipal
/Lower Makefield Township Engineer
/Lower Makefield Township Supervisors
/Eric Wightman, BCD Site Inspector
/Showalter & Assoc., Phil Kashner, 116 East Butler Ave., Chalfont, PA 18914

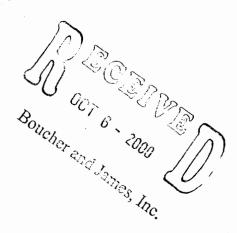
KHOV0505

Attachment 1

Phone: 215-345-7577 Fax: 215-345-7584 Website: www.bucksconservation.org



#### MAKEFIELD EXECUTIVE QUARTERS 301 OXFORD VALLEY ROAD, SUITE 1503, YARDLEY, PA 19067 TEL: (215) 493-4230 FAX: (215) 493-6075 www.khov.com



October 3, 2000

Montgomery County Conservation District 1015 Bridge Road, Suite B Collegeville, PA 19426

RE: HOVNANIAN PENNSYLVANIA, INC. - PINE ROAD SITE

To Whom It May Concern:

Enclosed is an application for one hundred and one (101) Single Family homes on Pine Road in Lower Moreland Township with the appropriate checks enclosed.

The two (2) checks are to the Montgomery County Conservation District:

\$ 250.00 - Clean Water Fund/NPDES General Permit

\$1,250.00 - Review Fee

If I can be of further assistance, please do not hesitate to call.

Very truly yours.

K. HOVNANIAN COMPANIES

Elizabeth R. Hurtubise

Legal Counsel

ERH:mw

Enclosure

cc: Alison Rudolf, Lower Moreland Township Jon Tresslar, Boucher & James, Inc.

Steven M. Dahl, Esq.

## Montgomery County Conservation District 1015 Bridge Road, Suite B Collegeville, Pa. 19426 610-489-4506

- 2000년) - 1998년	For Conservation District Use Only
	Entry #
	NPDES #
DATE: <u>August 25, 2000</u>	
PROJECT NAME: Pine Road Site	MUNICIPALITY: Lower Moreland Township
PROJECT SITE LOCATION: Pine Road	TOTAL PROJECT ACRES: 49.7 acres
	# OF DISTURBED ACRES: 47.2 acres
APPLICANT: Hovnanian Pennsylvania, Inc	ATTENTION: Jon Tresslar, P.F.
ADDRESS: 301 Oxford Valley Road, Suite 150	3 CONSULTANT Boucher & James, Inc.
CITY: Yardley STATE: PA	ADDRESS: P.O. Box 904
ZIP CODE: 19067 PHONE: 015) 493- 4230	CITY: Doylestown, STATE: PA
•	ZIP CODE: 18901 PHONE: 015) 345-9400
EROSION AND SEDIMENT	
	nicipal: Other: NUNIBER OF LOTS: _101_Dwe111n
NAME & DISTANCE TO NEAREST STREAM OR DRAINAGEWAY:	Trib. to Huntingdon Valley Creek: 300ft.
TVE YOU INCLUDED THE FOLLOWING?	DISTRICT REVIEW FEE (see back) If Residential: # Units 101 S1, 265,00
Written Narrative (X)  Complete Set of Drawings (X)  Stormwater Calculations pre & post (X)  Will wetlands be impacted? Yes ( ) No (N)A	OTHER: # Acres S (acreage is rounded to the next full acre)
*The Conservation District will not accept rolled plans. They must be folded.	DISTRICT E & S REVIEW FEE ATTACHED: \$1,265.00 (Make checks payable to: Montgomery County Conservation District)
	E ELIMINATION SYSTEM (NPDES) Permits
A GENERAL PERMIT Is required if the activity will disturb 5 acres or n	nore over the life of the project
An INDIVIDUAL PERMIT is required if:  the activity will disturb 5 acres or more over the life of the project a  the activity will discharge toxins  the activity will violate Water Quality Regulations.	nd the project is located in the UNAMI WATERSHED.  \$500.00
	NPDES Permit fee attached S 250.00 (Make checks payable to: Clean Water Fund)
***************************************	
The undersigned agrees to comply with all requirements of TITLE 25, CHAPTI forth by the Pennsylvania Department of Environmental Protection's EROSION April 1990, and further agrees to obtain all necessary permits in connection with	ER 107, Erosion and Sediment Pollution Control Rules and Regulations as set AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, dated
	(applicant's skydiure)

PLICATIONS WILL NOT BE ACCEPTED UNLESS IT IS FILLED OUT IN ITS ENTIRETY AND SIGNED BY THE APPLICANT
Applications are date stamped upon receipt. Within thirty days from the date of an administratively complete application, the district technical review of the Erosion and Sediment control plan will be conducted. If revisions are necessary, revised plans are also date stamped upon receipt and reviewed in sequence with other applications.

Rev 10/97

# FEE SCHEDULE FOR EROSION & SEDIMENTATION CONTROL REVIEWS MONTGOMERY COUNTY, PENNSYLVANIA

## FOR SUBDIVISIONS, LAND DEVELOPMENTS, LAND IMPROVEMENT PROJECTS

In general, fees are intended to cover the initial review and one revision of a project. However, the Conservation District reserves the right to impose an additional fee for reviewing second and subsequent revisions of a project plan. This fee will be 25% of the original District review fee charged for the project.

Resubmission of a plan which has exceeded the TWO year time limit as stated in the letter of adequacy will be considered a new submission. A FULL FEE will be charged based on the fee schedule in effect at the time of resubmission.

#### RESIDENTIAL SUBDIVISIONS

A unit is defined as a dwelling designed to accommodate a single household. This applies to single family homes, twin unit homes, clusters, condominiums, and apartments. This schedule is based on the number of units to be built, not the acreage of the site.

Number of Units	Fcc	•
1	\$ 75.00	
2-5	190.00	
6-10	375.00	
11-25	625.00	
26-50	950.00	,
51-100	1250.00	
101+	1250,00 plu	is \$15.00 per unit over 100

## COMMERCIAL, INDUSTRIAL, INSTITUTIONAL & OTHER LAND DEVELOPMENTS

The fee charged for acreage is based on the overall size of the project, not the number of disturbed acres.

Number of Acres	Fee
1	\$ 250.00
2-5	500.00
6-10	1000.00
11-20	1500.00
21+	1500.00 plus \$20 00 per acre over 20

### FEES FOR PROJECTS INVOLVING MINIMUM EARTHMOVING

(Examples: culvert replacement, driveway bridge, pond, sewer installation, stream ford or bank stabilization)
These projects will be assessed a fee on a case by case basis, but will not be charged less than a residential subdivision single unit. Applicant should contact the District office for additional information or clarification of fees

KHOV0508

Effective date March 1, 1997
This fee schedule supersedes all earlier fee schedules

## NOTICE OF INTENT (NOI)

SIC Code: CO

# FOR COVERAGE UNDER THE PENNSYLVANIA GENERAL PERMIT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (PAG-2)

il.						
A. APPLICATION TYPE (CHECK ONE):			B. FACILITY C	WNEF	RNAME:	
RENEWAL OF PERMIT #			Hownanian Pennsylvania, Inc.			
C. OPERATOR(S) NAME(S): (If more than o	one, use separate sl	heet)			SS AND TELEPHON	
		1				, Suite 1503
			Yardley	, PA	19067, (	215-493-4230)
MAILING ADDRESS AND TELEPHONE NO	).:		D. FACILITY L	OCATI	ON:	
			Municipali	ty: <u>Lo</u>	wer Morelan	d Township
· -		1		.,		
			County:	mon	rgomery	
S ADDICANT CTATILS OVACIED TO	OWNER	ATOR 0	OPERATOR			
E. APPLICANT STATUS: OWNER X	OWNER/OPER				53.00	
F. FACILITY TYPE: FEDERAL D STA	TE D PRIVA	15 83	PUBLIC []		ER 🗆 Please	explain:
G. DEVELOPMENT NAME (If applicable):		1	H. FACILITY L	ATITU	DE/LONGITUDE:	
Pine Road Site			LATITUDE -	40	/07_/09_	
		- 1	LONGITUD	E-75	_/_02_/39	
			U.S.G.S. QU	IAD NA	AME: <u>Frankfo</u>	urd, PA-NJ
		].	Locate project:	site on	U.S.G.S. map and	attach to this application.
I. QUANTITATIVE DATA (SUBMIT ALL EXIS	TING DATA USE SE					
		1		1		DATE(5) 444 445 05
POLLUTANT	NCENTRATION w/Units	s	OURCE	S	AMPLE TYPE	DATE(S)/NUMBER OF SAMPLES
(1)						
N/A						
(2) N/A						
J. STORMWATER DISCHARGES TO:						
WATERS OF THE COMMONWEALTH 🙀	MUNICIPAL	SEPARAT	E STORM SEWE	R 🗆	PRIVAT	E STORM SEWER
RECEIVING WATER/WATERSHED NAME:	NAME OF MUNI	CIPAL STO	ORM SEWER		NAME OF PRIVA	TE STORM SEWER
Tributary to Huntingdon	OPERATOR:				OPERATOR:	
Valley Creek						
CHARTER 03 DECENTRIC MATER	SECOND ADVIS	ATERE				
CHAPTER 93 RECEIVING WATER CLASSIFICATION:	SECONDARYWA	41EK):				
WWF						
V DESCRIPTION OF PROJECT	<u> </u>		<del></del>		·	
K. DESCRIPTION OF PROJECT:		• • •				
Construction of 101 single	e family dwe	lling	on individ	lual	lots	
LIST EXISTING AND PREVIOUS USES OF TH	E LAND UNDER PR	OPOSED (	CONSTRUCTION	1:		
Existing use: Vacant						
Previous use: AirPort						
SIZE OF TOTAL DEVELOPMENT (ACRES):	49.7			TOTAL	L DISTURBED (ACR	ES): 47.2

N	O. OR NAME				.(ES	1	
		Entire Site		49.7	47.2	3/01	9/02
-		Brette Site					
<u> </u>						<b>-</b>	<del> </del>
<u></u>						<u> </u>	
					Į		
N.	WILL YOU USE ACCIDENTAL	E AND/OR STORE CHEMICALS, SO POLLUTION DURING EARTH DIST	OLVENTS, OTHI	ER HAZARDOUS WA D OTHER CONSTRU	ASTE OR MATERIAL CTION ACTIVITIES?	S WITH THE POTENT	TIAL TO CAUSE
	YES O NO	<b>10</b>					•
	(If yes, a Plann	ing, Preparedness and Continge	ncy (PPC) Plan	is required in accord	dance with 25 Pa. C	ode).	
О.	NAME OF ERO CONTROL PLA	SION AND SEDIMENT N PREPARER:	QUALIFICATION	ON OR JOB TITLE:			
Jo	on Tressla	r	Profes	sional Engin	eer		
	COMPANY NA	ME:		D TELEPHONE NO.:			
n.	( T	T	P.O. Box 215-345-	904, Doyles	town, PA 18	3901	
P.	CERTIFICATION	ames, Inc.	213-343-	3400			
	a system desig of the person submitted is, to described here activities and to Contingency Paccordance with aware that the knowing violated NAME AND OF HOVNANIAN SIGNATURE:	penalty of law that this docume ned to assure that qualified per or persons who manage the sys of the best of my knowledge and inabove is eligible for coverage hat the Best Management Practilans, and other stormwater polith general permit requirements are significant penalties for sions.  FICIAL TITLE (OWNER):  Pennsylvania, Inc.	rsonnel proper tem, or those d belief, true, a ge under the I tices (BMPs), in llution prevent s and to ensur or submitting to	ly gathered and every persons directly resoccurate, and complete the control of t	aluated the inform ponsible for gathe lete. I further acknowled the store of Sediment Control on strategies are ty standards and e including the possible DATE	ation submitted. Being the information owledge that the community of the c	ased on my inquiry in, the information construction activity from construction ass, Prevention, and and maintained ir are attained. I am imprisonment for
	SIGNATURE:				DATE	SIGNED:	
	NOTARIZATION SWORN TO AND	O SUBSCRIBED TO BEFORE ME THE THE SUBSCRIBED TO BEFORE ME THE SUBSCRIPED TO BEFORE ME	, C		car w		R. Notary Public
Ω. (	To be Complete	ed By Appropriate Conservation	District or Reg	ional Office) EROSI	ON AND SEDIMENT	CONTROL PLANS	•
ſ	DATE OF INITIAL	PLAN SUBMITTAL:	DATE FINAL F	REVISIONS SUBMITT	ED:	_ DATE AUTHORIZ	ED:
5	IGNATURE OF	AUTHORIZED REPRESENTATIVE	OF THE APPRO	PRIATE CONSERVA	TION DISTRICT:		
<u>.</u>	ignature		Name and	Official Title		. Date	



# EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM NPDES GENERAL PERMIT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (PAG-2) APPLICANT CHECKLIST

Please check the following list to make sure that you have included all the required information. Place a check mark in the column provided for all items completed and/or provided:

\* \* \* OFFICIAL USE ONLY \* \* \*
Application ID#
Stamp Date Application Received

Failure to provide all of the requested information will delay the processing of the application and may result in the application being placed <u>ON HOLD</u> with <u>NO ACTION</u>, or being considered withdrawn and the application file closed.

ENCLOSE THIS CHECKLIST WITH YOUR APPLICATION FORM.

CENEDAL	NIDDEC	CTODAMMATED	DEDMIT	(CONSTRUCTION	VCTIVITIES)
ITENTRAL	IVPLIES	7111NIVIVIA 1 FR	PENIVIII	ICOMBINGERON	WCIINTII

	GENERAL NPDES STORM	WATER PERMIT (CONSTRU	JCHON ACTIVITIES)	<del></del>
	CHECKLIST FOR <u>NEW</u> NPDES PERMIT APPLICATIONS ONLY  Requirement			
1.	Fully completed, properly signed and notarized N	otice of Intent Form.		Х
?.	Complete Erosion and Sediment Control Plan.	Location: Drawings (D),	Narrative (N).	X
	a. Topographic features	Location: D/N	Page: <u>6-9/1</u>	
	b. Soils information	Location: D/N	Page: <u>6,7/1,</u> 6	
	c. Proposed alteration	Location: <u>D</u>	Page: <u>10-21</u>	
	d. Amount of runoff	Location: N	Page: 3	
	e. Staging of earthmoving activities	Location: D/N	Page: 23/7,8	·
	f. Temporary control measures/facilities	Location: D	Page:18-23	
	g. Permanent control measures/facilities	Location: D	Page: <u>18-23</u>	
	h. Maintenance	Location: D	Page:	
3.	Permit filing fee of \$250.00 payable to the approp	riate Clean Water Fund.	·	Х
4.	Location Map: USGS of scale 1:24,000 indicating p	project location and boundaries.		X
5.	Complete Act 14 notifications to the local municipal for an NPDES stormwater permit authorizing dis			x
6.	Proof of receipt of Act 14 notifications; copies of coloral municipality and county government.	ertified mail receipts or acknowle	dgment letters from the	x
7.	Completed PNDI Supplement #1, Form #3630-FM-	WQ0037		. v
	CHECKLIST FOR NPDES PERMIT RENEWALS ONLY  Requirement			Check √ If Included
1.	Fully completed, properly signed and notarized No	tice of Intent Form.		
2.	Permit filing fee of \$250.00 payable to the appropr	iate Clean Water Fund.		



#### VATIVE ENGINEERING

→ Buckingham Professional Building P.O. Box 904 Doylestown, PA 18901 215 345-9400 Fax 215 794-3987

August 31, 2000

CERTIFIED MAIL NO. 7099 3220 0007 6774 8357

The Atriem of Quakertown 127 5.5th Street, Suite 300 Quakertown, PA 18951 215 538-7390 Fax 215 538-3977

Ms. Alison Rudolf, Township Manager Lower Moreland Township 640 Red Lion Road Huntingdon Valley, Pennsylvania 19006

vvvvv.bjengineers.com

SUBJECT:

**ACT 14 NOTIFICATION FOR NPDES PERMIT APPLICATION** 

PINE ROAD SITE

LOWER MORELAND, MONTGOMERY COUNTY, PA

PROJECT NO. 99284L

Dear Ms. Rudolf:

Please be advised that Hovnanian Pennsylvania, Inc. is making application to the PADEP to obtain an NPDES stormwater permit authorizing discharge of stormwater during a construction activity. The project is located on Pine Road, approximately a quarter mile southwest of Tomlinson Road. The project consists of the construction of one hundred one (101) single-family detached dwellings, with associated roads, open space and stormwater management improvements. Three (3) proposed stormwater detention/sedimentation basins will be constructed to reduce stormwater runoff from the development and to provide sediment storage during construction.

Approximately forty-seven (47) acres of earth disturbance will occur during construction. An erosion and sedimentation control plan will be submitted to the Montgomery County Conservation District.

Very truly yours,

John M. Hako, P.E.

JMH/smf

U:\99284\documents\NPDES-Act14.wpd



#### VATIVE ENGINEERING

 Buckingham Professional Building PO: Box 904
 Doylestown, PA 18901
 215 345-9400
 Fax 215 794-3937

August 31, 2000

N

CERTIFIED MAIL NO. 7099 3220 0007 6774 8142

The Actium of Quakertown 127 S 5th Street, Suite 300 Quakertown, PA 18951 215 538-7880 Fax 215 538-3977

Mr. Robert Graf Montgomery County Chief Operating Officer P.O. Box 311 Norristown, Pennsylvania 19404

www.bjengineers.com

SUBJECT:

**ACT 14 NOTIFICATION FOR NPDES PERMIT APPLICATION** 

PINE ROAD SITE

LOWER MORELAND, MONTGOMERY COUNTY, PA

PROJECT NO. 99284L

Dear Mr. Graf:

Please be advised that Hovnanian Pennsylvania, Inc. is making application to the PADEP to obtain an NPDES stormwater permit authorizing discharge of stormwater during a construction activity. The project is located on Pine Road, approximately a quarter mile southwest of Tomlinson Road. The project consists of the construction of one hundred one (101) single-family detached dwellings, with associated roads, open space and stormwater management improvements. Three (3) proposed stormwater detention/sedimentation basins will be constructed to reduce stormwater runoff from the development and to provide sediment storage during construction.

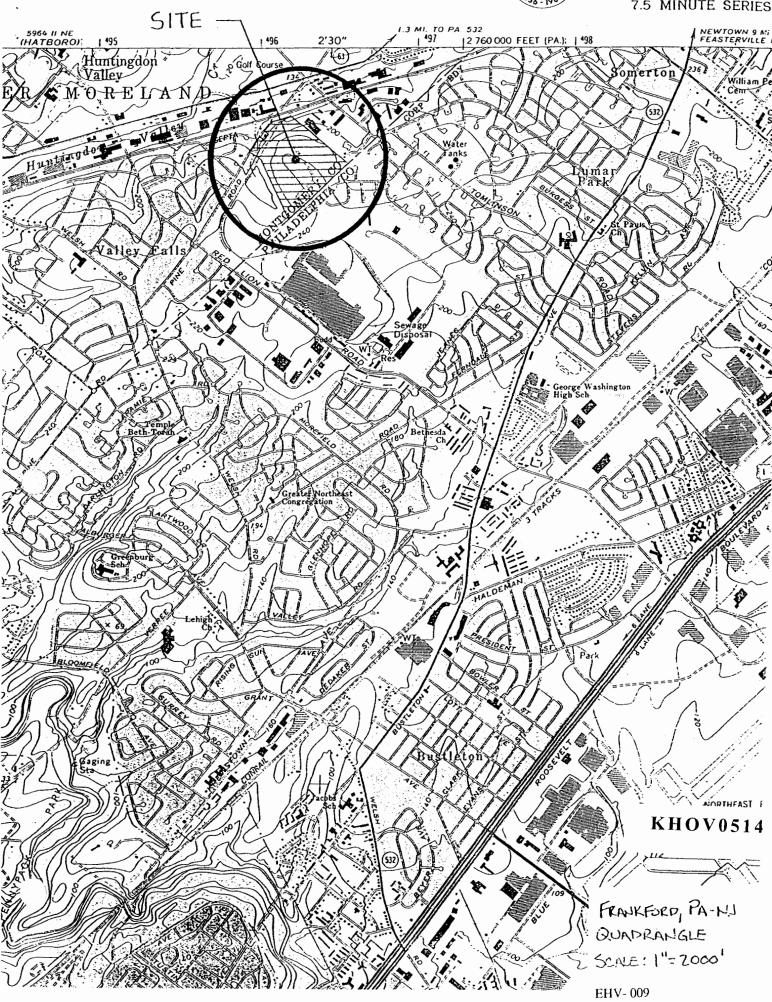
Approximately forty-seven (47) acres of earth disturbance will occur during construction. An erosion and sedimentation control plan will be submitted to the Montgomery County Conservation District.

Very truly yours,

John M. Hako, P.E.

JMH/smf

U:\99284\documents\NPDES-Act14.wpd



3630-FM-WQ0037 Rev. 8/99

submissions.

# COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER QUALITY PROTECTION BUREAU OF WATERWAYS ENGINEERING

PNDI Screening Reviewer	
Date	
Phone No.	1
	is all weeters .

# SUPPLEMENT NO. 1 PENNSYLVANIA NATURAL DIVERSITY INVENTORY SEARCH FORM

This form provides site information necessary to perform a computer screening for species of special concern listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat Code or the PA Game and Wildlife Code. Records regarding species of special concern are maintained by PA DCNR in a computer data base called the "Pennsylvania Natural Diversity Inventory" (PNDI). Results from this search are not intended to be a conclusive compilation of all potential special concern resources located within a proposed project site. On-site biological surveys may be recommended to provide a definitive statement on the presence or absence, or degree of natural integrity of any project site. Results of this PNDI search are valid for one year.

Please complete the information below, attach an 8½" x 11" photocopy (DO NOT REDUCE) of the portion of the U.S.G.S. Quadrangle Map that identifies the project location and outlines the approximate boundaries of the project and mail to the appropriate DEP regional office or delegated County Conservation District prior to completing a Chapter 105 environmental assessment or any other DEP permit application. (SEE REVERSE SIDE FOR LIST OF OFFICES AND ADDRESSES).

NAME: Jon Tresslar, P.E.	U.S.G.S. QLIADRANGLE MAP
ADDRESS: Boucher & James, Inc.	
P.O. Box 904	
Doylestown, PA 18901	
PHONE: (_215_) 345-9400	
UNTY: Montgomery	
TWP./MUNICIPALITY: Lower Moreland Township	N <sub>6.3</sub>
U.S.G.S. 7½ Minute Quadrangle	
Frankford, PA -Nj	
PROJECT DESCRIPTION AND SIZE (Briefly describe entire area relevant to your project, including acreage.)	
	North (Up) 21.6 inches
101 Single - Family Detached Dwellings	West (to the left) 6.2 inches
on 49.7 acres	INDICATE PROJECT LOCATION TO THE NEAREST ON TENTH INCH MEASURING FROM THE EDGE OF THE
	MAP IMAGE FROM THE LOWER RIGHT CORNER.
FOR OFFICIAL USE OF	, NLY
SCREENING RESULTS - Follow the directions of the checked block.	
No potential conflicts were encountered during the PNDI inquiry. Chapter 105 environmental assessment or other DEP permit appl	· · · · · · · · · · · · · · · · · · ·
Potential conflicts must be resolved by contacting the natural resolved a copy of this form and the PNDI receipt along with a brie consultation and recommendations. Include this form, the print	ource agencies listed on the PNDI receipt. Please of description of your project to the listed agency for

agency's written recommendation with your Chapter 105 environmental assessment or other DEP permit application

- Allegheny County Lexington Technology Park Bldg #1, Suite 102 400 N. Lexington Ave. Pittsburgh, PA 15208
- trong Co. dale Admin. Bldg. RR 8 Box 294 Kittanning, PA 16201
- Beaver County 1000 Third St., Ste 202 Beaver, PA 15009-2026
- Bedford County ◆ Fairlawn Court, Suite 4 702 W. Pitt Street Bedford, PA 15522
- Berks County ◆Agricultural Center 1238 County Welfare Rd. P.O. Box 520 Leesport, PA 19533-0520
- Blair County 1407 Blair Street Hollidaysburg, PA 16648
- Bradford County
   RR 5, Box 5030-C
   Stoll Nature Res. Center Towanda, PA 18848
- Bucks County 924 Town Center New Britain, PA 18901-5182
- Butler County ◆ 122 McCune Drive Butler, PA 16001-6501
- Carebria County
   Andlelight Dr., Ste. 221
   Euseburg, PA 15931
- Carbon County 5664 Interchange Rd. Lehighton, PA 18235-5114
- Centre County Suite 4 414 Holmes Ave. Bellefonte, PA 16823
- Chester County P.O. Box 2747 601 Westlown Rd., Ste. 240 West Chester, PA 19380-0990

**Delegated Programs** ♦ Chapter 105 GP6 and GP9 only NPDES and Chapter 102 Chapter 102 only

- Soils and Waterways Office

Northcentral Regional Office 208 W. Third St. Suite 101 Williamsport, PA 17701 (570) 327-3574

Northeast Regional Office 2 Public Square Wilkes-Barre, PA 18711-0790 (5701 776-5485

Nor. st Regional Office 230 Chestnut Street Meadville, PA 16335 (814) 332-6942

- Clearfield County 650 Leonard Street Clearlield, PA 16830
- Clinton County
  36 Spring Run Rd., Rm. 104 Mill Hall, PA 17751-9543
- Columbia County
   ↑ 702 Sawmill Rd., Suite 204 Bloomsburg, PA 17815
- Crawford County◆ 1012 Water St., Suite 18 Meadville, PA 16335
- Cumberland County ♦ 43 Brookwood Ave., Suite 4 Carlisle, PA 17013-9172
- Dauphin County 1451 Peters Mountain Road Dauphin, PA 17018
- Delaware County Rose Tree Park-Hunt Club 1521 N. Providence Rd. Media, PA 19063
- ◆ Elk County◆ P.O. Box 448 300 Center St. Ridgway, PA 15853
- Erie County 12723 Rte. 19 P.O. Box 801 Waterlord, PA 16441
- # Fayette County 10 Nickman Plaza Lemont Furnace, PA 15456
- # Forest County Courthouse Annex P.O. Box 456 Tionesta, PA 16353
- Franklin County Administrative Annex 218 N. Second Street Chambersburg, PA 17201
- Fulton County ◆ 216 North Second Street McConnellsburg, PA 17233
- Greene County
   Greene County Office Building
   93 E. High Street, Room 215 Waynesburg, PA 15370-1839
- Huntingdon County
   RR 1, Box 7C
   Huntingdon, PA 16652-9603
- Indiana County Ag Service Ctr. 251 Route 286 North, Ste. 103 Indiana, PA 15701-9203

- O Juniata County ♦ RR 3, Box 302 Mifflintown, PA 17059-9609
- Lackawanna County 1300 Old Plank Rd. Mayfield, PA 18433
- Lancaster County ♦ 1383 Arcadia Road, Room 6 Farm & Home Center Lancaster, PA 17601
- Lawrence County 430 Court St. New Castle, PA 16101
- Lebanon County
- Lehigh County
- Luzerne County 485 Smith Pond Rd. P.O. Box 250 Lehman, PA 18627-0250
- Montoursville, PA 17754
- # McKean County P.O. Box E
- Mercer County 747 Greenvillé Rd. Mercer, PA 16137
- Mifflin County20 Windmill Hill #4 Burnham, PA 17009
- Monroe County
   ♦ 8050 Running Valley Road Stroudsburg, PA 18360-0917
- Montgomery County 1015 Bridge Rd., Ste. B Collegeville, PA 19426
- ♦ Montour County # 112 Woodbine Lane, Ste. 2
- Northampton County Greystone Bldg.
- Northumberland County ♦ RR 3, Box 238C Sunbury, PA 17801

- 2120 Cornwall Rd., Ste. 5 Lebanon, PA 17042-9788
- Lehigh Ag. Ctr, Ste 102 4184 Dorney Park Rd. Allantown, PA 18104-5728
- Lycoming County
   542 County Farm Rd., Ste. 202
- Custer City, PA 16725

- Danville, PA 17821
- Gracedale Complex Nazareth, PA 18064-9211

## New Bloomfield, PA 17068

- Pike County ♦ HC6, Box 6770 Hawley, PA 18428
- Potter County ◆ 107 Market Street Coudersport, PA 16915
- Schuylkill County 1206 Ag. Center Dr. Pottsville, PA 17901
- Snyder County403 West Market Street Middleburg, PA 17842
- Somerset County
   N. Ridge Bldg., Ste 103
   1590 N. Ctr. Ave. Somerset, PA 15501
- Sullivan County ◆ RR 4, Box 4181 Dushore, PA 18614
- # Susquehanna County ★ County Office Building 31 Public Avenue Montrose, PA 18801
- ◆ Tioga County◆ 29 East Avenue Wellsboro, PA 16901
- Union County ♦ 60 N. Bull Run Crossing Lewisburg, PA 17837-9700
- Venango CountyRR 5, Box 320Franklin, PA 16323
- ◆ Warren County
   ◆ 609 Rouse Ave., Ste. 203 Youngsville, PA 16371
- Washington County
  100 W. Beau Street, Ste. 602
  ♦ Washington, PA 15301
- Wayne County
   ◆ 470 Sunrise Ave. Honesdale, PA 18431
- Westmoreland County Donohoe Center RR 12, Box 202B Greensburg, PA 15601
- Wyorning County ◆ 1 Hollowcrest Complex Tunkhannock, PA 18657
- York County 118 Pleasant Acres Rd. York, PA 17402

#### DEPARTMENT OF ENVIRONMENTAL PROTECTION

#### County Responsibility

Bradford, Cameron, Centre, Clearfield. Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, and Union

Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, and Wyoming

Butter, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, and Warren

#### Soils and Waterways Office

Southcentral Regional Office 909 Elmerton Avenue, Second Floor Harrisburg, PA 17110 (717) 705-4707

Southeast Regional Office Lee Park, Suite 6010, 555 North Lane Conshohocken, PA 19428 (610) 832-6130

Southwest Regional Office 400 V/aterfront Drive Pittsburgh, PA 15222-4745 (412) 442-4000

## County Responsibility

Adams, Bedford, Berks, Blair, Cumberland. Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Millin, Perry. and York

Bucks, Chester, Delaware, Montgomery. and Philadelphia

Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, and Westmoreland

EHV-011

## PINE ROAD SITE

## EROSION AND SEDIMENTATION CONTROL NARRATIVE & COMPUTATIONS PROJECT NO. 99-284

## LOWER MORELAND TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA

SEPTEMBER 1, 2000

For:

Hovnanian Pennsylvania, Inc. Makefield Executive Quarters 301 Oxford Valley Road, Suite 1503 Yardley, Pennsylvania 19067

Prepared by:

Ŋ

**BOUCHER & JAMES, INC.** 

Consulting Engineers

P.O. Box 904 Doylestown, PA 18901 (215) 345-9400 127 S. Fifth Street, Suite 300 Quakertown, PA 18951

(215) 538-7880-

## **INDEX**

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CONSTRUCTION SEQUENCE	7
E&S DESIGN WORKSHEETS	9
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### I. INTRODUCTION

This report documents the overall design of stormwater management for a residential subdivision located off *Pine Road (SR 2050)*, just SW of its intersection with *Tomlinson Road*. The applicant for the project is *Hovnanian Pennsylvania*, *Inc.* 

## II. PROPOSED DEVELOPMENT PLAN

The proposed project consists of the 101 lot residential subdivision of an existing 49.7 acre tract *Lower Moreland Township, Pennsylvania*, comprised by Tax Block Eight (8), Parcels Four (4) & Seven (7). The site lies along the County's shared border with *Philadelphia County*.

### III. TOPOGRAPHY

The existing tract is diverse in nature. It is comprised mainly of meadow, woodland, bare earth and over grown pavement in poor condition. The paved portion was formerly used as an airport but has since been abandoned and is in a general state of disrepair. There is also an abandoned railway alignment crossing the northern end of the site. The slopes on the site could be categorized as moderate to severe.

### IV. SOILS

The following soils have been mapped on the site according to the Soil Survey of Montgomery County, Pennsylvania By the U.S.D.A. Soil Conservation Service:

Symbol	Description	Slopes	Soil Type
GnB2	Glenville Silt Loam, moderately eroded	3 to 8 %	'С'
GnC2	Glenville Silt Loam, moderately eroded	8 to 15 %	'C'
На	Hatboro Silt Loam		'D'
MdB	Made land, schist and gneiss materials, strongly sloping	2 to 8%	ʻC'
MhC2	Manor Channery Silt Loam, moderately eroded	8 to 15 %	'B'

## V. STORMWATER MANAGEMENT CONCEPT

A stormwater collection & conveyance system along with multiple detention basins are proposed to control and attenuate developed site runoff. Per the requirements of the *Lower Moreland Township S.A.L.D.O.*, developed peak stormwater runoff leaving the site will be equal to or less than the pre-developed amount. This is achieved by routing developed site runoff to three (3) proposed detention basins. The detention basins attenuate peak runoff for the 1-100 year storm events. Runoff is collected via a stormwater collection system which is primarily located within the site's interior roadways.

KHOV0519

#### VI. CALCULATIONS

Detention basin design is based on S.C.S. methodology for runoff depth and hydrograph generation. Runoff curve numbers and time of concentration are based on TR-55. Hydrographs are based on the S.C.S. unit hydrograph set forth in TR-20. Hydrograph reservoir routing is based on the storage-indication method. Additionally, all cumulative peak flows calculated were generated by summing constituent hydrographs (not by algebraically summing individual peaks). All of these functions are automated by the use of the Hydraflow TM computer program. Please note: a \* six minute minimum time of concentration (0.1 hr) was assumed for any bypass area depicted on the drainage area boundary plans which does not indicate a flow path (\* per TR-55 guidelines).

Storm sewer design flows were generated using the 'Rational Method.' The 10-year frequency event was used for all inlet collection design. The 100-year frequency event was used for all pipe capacity designs. The safety factor utilized for the 100-year frequency event, 1.2, was applied to the rainfall intensity values so that the drainage area & runoff coefficients assumed for each inlet could be properly interpreted from the StormCAD TM output.

## VII. STORMWATER RUNOFF ANALYSIS:

The site has five principle design points for developed runoff discharge along its outer perimeter. Three drainage areas: B, C, and D consist of both detained & bypass areas. Two drainage areas: A and E are comprised strictly of bypass area.

Drainage areas A & B discharge to an off-site stream which meanders northwest, parallel to the site's southwest boundary, and crosses beneath *Pine Road*.

Drainage areas C & D discharge to the site's northern tip.

Drainage area E is a small swath of area currently draining along the site's s o u t h e a s t boundary with *Philadelphia County*, adjacent to an existing residential community.

Peak runoff rates to all drainage points have been significantly reduced from pre-developed levels.

Tomlinson Road (99-284) Lower Moreland Township By: Date: LDM2,PE 27-Aug-00

## **Peak Flow Summary**

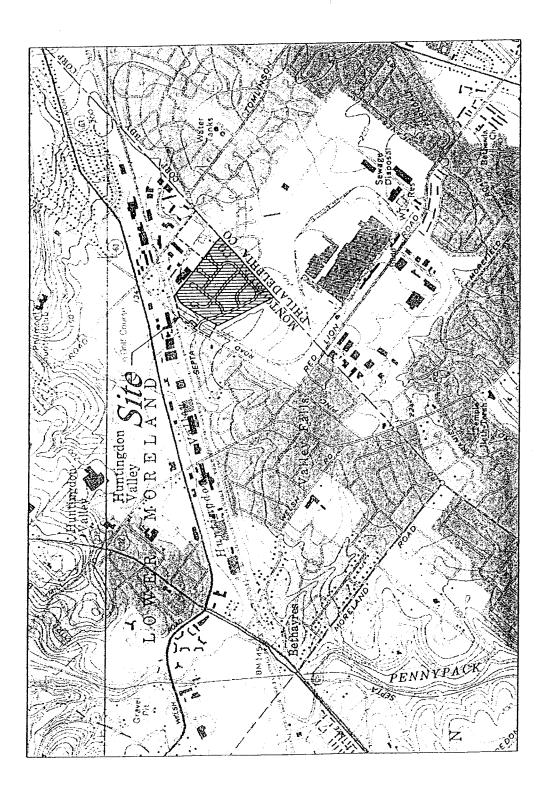
Pre-Dev Pe	ak Runoff	(cfs)				
Event			Drainage Are	ea		
(YR)	а	b	С	d	е	
1	4.9	1.1	15.4	.2.4	1.4	1
2	8.7	1.8	27.1	4.2	2.3	
5	15.2	3.0	47.1	7.1	3.9	
10	21.6	4.2	66.7	10.1	5.4	
25	28.3	5.5	87.5	13.2	6.9	
50	33.6	6.5	103.8	15.6	8.2	
100	40.8	7.9	126.1	19.0	9.9	

Post-Dev F	eak Runoff	(cfs)			
Event			Drainage Are	ea	
(YR)	а	b	С	d	е
1	4.1	1.0	10.7	2.2	8.0
2	6.1	1.4	19.1	3.2	1.2
5	9.2	2.1	36.7	5.3	2.0
10	12.2	2.9	54.6	6.8	2.8
25	15.3	3.9	70.7	8.5	3.6
50	17.6	4.8	85.5	9.9	4.2
100	20.8	5.8	112.2	11.9	5.0

Reduction	(cfs)				
Event			Drainage Are	ea	
(YR)	а	b	С	d	е
1	0.8	0.1	4.7	0.2	0.7
2	2.6	0.4	8.0	0.9	1.1
5	6.0	0.9	10.4	1.8	1.9
10	9.3	1.3	12.1	3.3	2.6
25	13.0	1.6	16.8	4.7	3.4
50	16.0	1.8	18.2	5.7	4.0
100	20.1	2.1	13.9	7.0	4.8

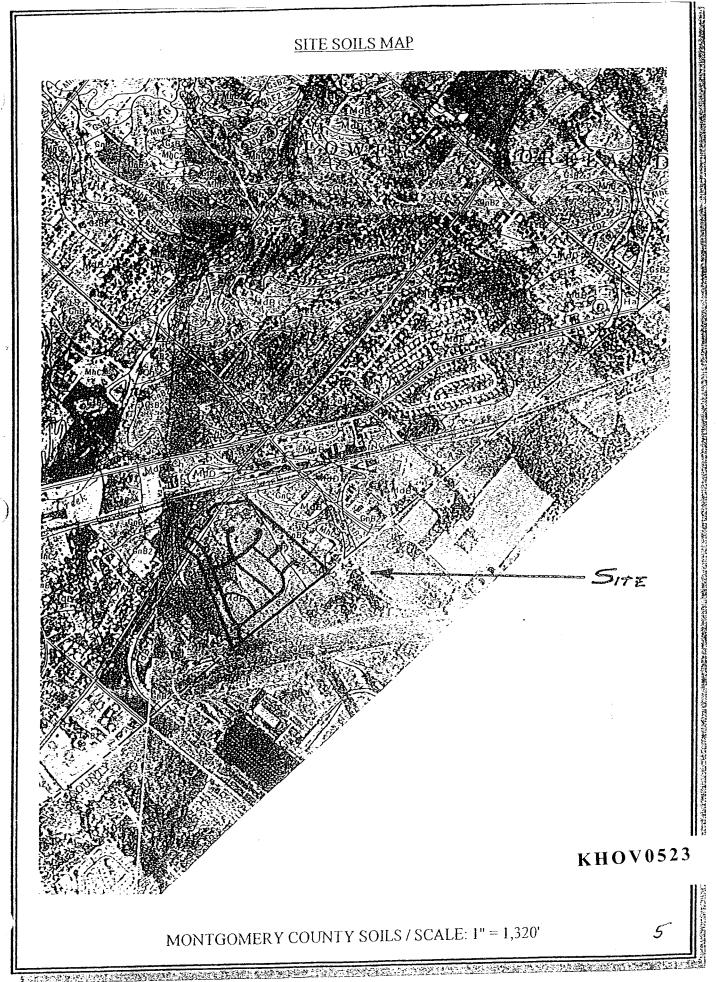
Reduction	(%)				
<ul> <li>Event</li> </ul>			Drainage Ar	ea	
(YR)	a	b	С	đ	е
1	16	7	30	10	47
2	30	23	29	23	48
5	39	31	<b>2</b> 2	26	48
10	43	31	18	33	49
25	46	29	19	36	49
50	48	27	18	37	49
100	49	26	11	37	49

## SITE LOCATION MAP



Hatboro & Frankford Quadrangle / Scale: 1" = 2,000'

4



# SOILS INFORMATION

KEY	SOIL TYPE AND DESCRIPTION	LIMITATIONS FOR BUILDINGS WITH BASEMENTS
GnB2	Glenville Silt Loam, 3 to 8 percent slopes, moderately eroded — Type 'C'	Slight
GnC2	Glenville Silt Loam, 8 to 15 percent slopes, moderately eroded — Type 'C'	Moderate - Slope
На	Hatboro Silt Loam Type 'D'	Severe — Flooding, High Water Table
Mdb	Made Land, schist and gneiss materials, strongly sloping — Type 'C'	Slight — Varioble depth to Bedrock
MhC2	Manor Channery Silt Loam, 8—15% slopes, moderately eroded — Type 'B'	Moderate - Slope

KEY	LIMITATIONS FOR LAWNS & LANDSCAPING	SUITABILITY FOR WINTER GRADING
GnB2	Slight	Fair
GnC2	Moderate - Slope	Fair
На	Severe — Wetness, Flooding	Poor
Mdb	Slight	Fair
MhC2	Moderate — Shallow to Bedrock, Droughty	Fair

GENERAL RESOLUTIONS FOR SO	IL LIMITATIONS
SEASONAL HIGH WATER TABLE	BASEMENT UNDERDRAINS MAY BE REQUIRED
SEVERE SLOPE	ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED
SHALLOW DEPTH TO BEDROCK	BLASTING MAY BE REQUIRED
UNSUITABLE FOR WINTER GRADING	EARTH MOVING ACTIVITIES MAY NEED TO BE SUSPENDED DURING FREEZING COLD WEATHER

#### **CONSTRUCTION SEQUENCE:**

- 1. INSTALL STONE TIRE CLEANING AREA AT ROAD 'A' ENTRANCE.
- 2. INSTALL SILT FENCE AND/OR TREE PROTECTION FENCING FOR SEDIMENT BASINS ONE (1), TWO(2) & THREE (3) AND SEDIMENT TRAPS ONE(1) & TWO(2).
- 3. CLEAR AND GRUB TREES NECESSARY FOR CONSTRUCTION OF SEDIMENT BASINS ONE (1), TWO(2) & THREE (3) AND SEDIMENT TRAPS ONE(1) & TWO(2).
- 4. CONSTRUCT & STABILIZE SEDIMENT BASINS ONE (1), TWO(2) & THREE (3) AND SEDIMENT TRAPS ONE(1) & TWO(2). CLEARING AND GRUBBING AND ROUGH GRADING OF ROADWAYS AND LOTS MAY COMMENCE WITHIN THE TRIBUTARY AREA OF A TRAP OR BASIN AFTER SUCH TRAP OR BASIN IS STABILIZED.
- 5. CLEAR AND GRUB TREES NECESSARY FOR CONSTRUCTION OF REMAINING E&S CONTROLS.
- 6. CONSTRUCT & STABILIZE STONE FILTER BERMS AND PERMANENT SWALES ONE (1) & TWO(2).
- 7. INSTALL SILT FENCE AND/OR TREE PROTECTION FENCING FOR REMAINDER OF SITE.
- 8. CLEAR AND GRUB REMAINDER OF SITE.
- 9. ROUGH GRADE ROADS AND BUILDING LOTS. STABILIZE ANY SEVERE CUT & FILL EMBANKMENT AREAS IMMEDIATELY UPON COMPLETION. CLEARING AND GRUBBING AND ROUGH GRADING OF ROADWAYS AND LOTS MAY COMMENCE WITHIN THE TRIBUTARY AREA OF A TRAP OR BASIN AFTER SUCH TRAP OR BASIN IS STABILIZED.
- 10. COMMENCE CONSTRUCTION OF BUILDINGS.
- 11. INSTALL UTILITIES. NOTE: STORM INLETS ARE TO BE PROTECTED IMMEDIATELY AFTER INSTALLATION ONLY IF THEY ARE NOT DISCHARGING TO A SEDIMENT BASIN OR TRAP.
- 12. INSTALL CURBING & CRUSHED STONE BASE COURSE.
- 13. INSTALL BITUMINOUS BASE COURSE AND COMBINATION INLET PROTECTION & BERMS.
- 14. FINISH GRADE LOTS. REMOVE SEDIMENT BASIN ONE(1), AND SEDIMENT TRAP TWO(2) AS NECESSARY TO CONSTRUCT ADJACENT LOTS, ONLY AFTER THEIR

TRIBUTARY AREAS ARE STABILIZED AND THEIR DRAINAGE CAN BE DIVERTED TO SEDIMENT BASIN TWO(2) VIA INSTALLED & FUNCTIONING STORMPIPE.

- 15. INSTALL ALL LANDSCAPING & LIGHTING.
- 16. PROVIDE PERMANENT SOIL STABILIZATION OF ALL REMAINING DISTURBED AREAS.
- 17. UPON COMPLETE STABILIZATION OF SITE (W/70% PERMANENT GROUND COVER ESTABLISHED) AND APPROVAL FROM THE MONTGOMERY CONSERVATION DISTRICT, REMOVE REMAINING TEMPORARY EROSION & SEDIMENTATION CONTROLS. SEDIMENT TRAP ONE(1) CAN BE CONVERTED TO PERMANENT DETENTION BASIN #1 WHEN 70% PERMANENT GROUND COVER HAS BEEN ESTABLISHED WITHIN ITS DRAINAGE BOUNDARY. SEDIMENT BASINS TWO(2) AND THREE(3) CAN BE CONVERTED TO PERMANENT DETENTION BASIN TWO(2) AND THREE(3) WHEN 70% PERMANENT GROUND COVER HAS BEEN ESTABLISHED WITHIN THEIR DRAINAGE BOUNDARIES. PROVIDE PERMANENT SOIL STABILIZATION FOR ALL AFFECTED AREAS. SEED & STABILIZE ALL FACILITIES BEING CONVERTED TO PERMANENT DETENTION BASINS IMMEDIATELY.
- 18. FINISH PAVE ROADWAY.

# STANDARD WORKSHEET COVER SHEET

DEVE	LOPMENT NAME:	PINE ROAD SITE	DATE: 09/01/00
1.	LOCATION:	LOWER MORELAND TOWNS (Municipality)	HIP, MONTGOMERY (County)
		(Mamoipanty)	(00411.5)
2.		HOVNANIAN PENI	
	[ 102.4(a) ]	(Nam	e)
	-		CUTIVE QUARTERS
		(Ado	dress)
	-	301 OXFORD VALI	LEY ROAD, SUITE 1503
	_	YARDLEY, PA_1906	67
		(Zip	)
Tala	phone # : ( 215 ) 493 - 42	30	•
PER OPE	SON(S) RESPONSIBLE	ON AND SEDIMENT POLLUTION	AINTENANCE OF EARTHMOVING N CONTROLS: Note: List all responsible partic
PER OPE dutie	SON(S) RESPONSIBLE RATIONS AND EROSIO	ON AND SEDIMENT POLLUTION an one party.	N CONTROLS: Note: List all responsible partie
PER OPE dutie	SON(S) RESPONSIBLE RATIONS AND EROSIC s are assigned to more that	ON AND SEDIMENT POLLUTION an one party.  Please Se	N CONTROLS: Note: List all responsible partie se Above me)
PER OPE dutie	SON(S) RESPONSIBLE RATIONS AND EROSIC s are assigned to more that	ON AND SEDIMENT POLLUTION an one party.  Please Se (Na	N CONTROLS: Note: List all responsible partie se Above me)
PER OPE dutie	SON(S) RESPONSIBLE RATIONS AND EROSIC s are assigned to more that	ON AND SEDIMENT POLLUTION an one party.  Please Se (Na	N CONTROLS: Note: List all responsible partie
PER OPE dutie	SON(S) RESPONSIBLE RATIONS AND EROSIC s are assigned to more that	ON AND SEDIMENT POLLUTION an one party.  Please Se (National Control of the contr	N CONTROLS: Note: List all responsible partie
PER OPE dutie	SON(S) RESPONSIBLE RATIONS AND EROSIC s are assigned to more that 02.4(a) ]  - chone #:( )	ON AND SEDIMENT POLLUTION an one party.  Please Se (National Control of the contr	N CONTROLS: Note: List all responsible partie
PER OPE dutie	SON(S) RESPONSIBLE RATIONS AND EROSIC s are assigned to more that 02.4(a) ]  - chone #:( )	ON AND SEDIMENT POLLUTION an one party.  Please Se (National Control of the Contr	N CONTROLS: Note: List all responsible partie  e Above me)  ress)  REPARER  E. / Boucher & James
PER OPE dutie	SON(S) RESPONSIBLE RATIONS AND EROSIG s are assigned to more that  02.4(a) ]  chone #:( )  EROSION AND SEDIM	ON AND SEDIMENT POLLUTION an one party.  Please Se (Na (Addition)  (Zip)  MENTATION CONTROL PLAN PR Leon D. McGuire Jr., P.I.	N CONTROLS: Note: List all responsible partie  e Above me)  ress)  REPARER  E. / Boucher & James e)  oylestown, PA
PER OPE dutie	SON(S) RESPONSIBLE RATIONS AND EROSIG s are assigned to more that  02.4(a) ]  chone #:( )  EROSION AND SEDIM	ON AND SEDIMENT POLLUTION an one party.  Please Se (Na (Add)  (Zip)  MENTATION CONTROL PLAN PE  Leon D. McGuire Jr., P.I. (Nam P.O. Box 904, D.	N CONTROLS: Note: List all responsible partie  se Above me)  ress)  REPARER  E. / Boucher & James e)  coylestown, PA ess)

# STANDARD WORKSHEET # 2 RECORD OF TRAINING AND EXPERIENCE IN EROSION AND SEDIMENTATION CONTROL METHODS AND TECHNIQUES

NAME OF PLAN PREPARER:

LEON D. MCGUIRE JR., P.E.

FORMAL EDUCATION:

B. S. CIVIL ENGINEERING, P.S.U.

Name of College or Technical Institute:

PENN STATE UNIVERSITY

Curriculum or program:

**CIVIL ENGINEERING** 

Dates of Attendance: From:

08-1985 TO 12-1990

Degree received:

**B.S. CIVIL ENGINEERING** 

OTHER TRAINING:

Name of Training:

8 YEARS OF EXPERIENCE IN LAND DEVELOPMENT

Presented by:

Date:

EMPLOYMENT HISTORY:

Current Employer:

BOUCHER & JAMES, INC.

Telephone:

(215) 345-9400

Former Employer:

GILMORE & ASSOCIATES, INC.

phone:

(215) 345-4330

#### RECENT EROSION AND SEDIMENTATION CONTROL PLANS PREPARED:

Name of Project:	Doylestown Hospital	Doylestown Y.M.C.A.	Longleaf Estates II
County:	Bucks	Bucks	Bucks
Municipality:	Doylestown Township	Doylestown Township	Hilltown Township
Permit Number: (If Applicable)	N/A	N/A	N/A
Approving Agency:	B.C.D.	B.C.D.	B.C.D.

RKOPION WIND DEDIMEDITATION COTTON

# STANDARD WORKSHEET # 8 TEMPORARY AND PERMANENT SEEDING SPECIFICATIONS

PROJECT NAME			<b>元</b> .)
LOCATION	: Lower Moreland TW	PIPA	
PREPARED BY:		DATE:	SHEET # OF
CHECKED BY:		DATE:	
	S: The Department recommen		
	dard to use for selection of s		
liming and fertili	zing, time of seeding, and see	eding methods. Spec	cifications for these
	e obtained from Penn DOT's l		
contacting the ap	plicable county conservation	district. Upon sele	ction of a reference,
	ust be used to provide all spe		
amendments. Th	e following specification will	be used for this pro	ject:
(771.000.00.1011)	cnrouget.	N 1 to	
(TEMPORARY)	SPECIES*:	Arriel Pres	21:55
	% PURE LIVE SEED:	98	I D /A CDI
	APPLICATION RATE:	48.4	LB./ACRI
	FERTILIZER TYPE:	10-20-20	
	FERTILIZER APPL. RATE:	678	LB./ACRE
	LIMING RATE:	1.9	T./ACRE
	MULCH TYPE:	Hay or Stran	
	MULCHING RATE:	3.0	T./ACRE
(DDD 14 4 1 ELIM)	appoint	KENTULKY I DO	10,12 10,13
(PERMANENT)	SPECIES*:	31 FESCUE   RED FESS	VELETAS
	% PURE LIVE SEED:	98 98	198 %
	APPLICATION RATE:	101.6	LB./ACRE
	FERTILIZER TYPE:	In-20-20	(X-X-X)
•	FERTILIZER APPL. RATE:	678	LB./ACRE
	LIMING RATE:	1.9	T./ACRE
	MULCH TYPE:	Harior Stran	
	MULCHING RATE:	3.0	T./ACRE
	ANCHOR MATERIAL:	Alu	
n Amr on A	ANCHORING METHOD:	Alu	
RATE OF A	NCHOR MATERIAL APPL:	NIA	
	SEEDING SEASON DATES:	3/15-6/1	8/1-10/15
(PERMANENT - ST	TEEP SLOPE) SPECIES*:		
(≥ 3:1)	% PURE LIVE SEED:	nola	%
( 0.1)	APPLICATION RATE:		
\$	FERTILIZER TYPE:		(X-X-X)
,	FERTILIZER APPL. RATE:		LB./ACRE
•	LIMING RATE:		T./ACRE
•	MULCH TYPE:		
	MULCHING RATE:		T./ACRE
	ANCHOR MATERIAL:		
	ANCHORING METHOD:		
PATE OF AN	NCHOR MATERIAL APPL: _		-
MALE OF M	SEEDING SEASON DATES: _		
L.	LEDING BEAGON DATES.		

<sup>\*</sup> If more than one species is used, indicate application rate for each species. NOTE: Show information from this sheet on plan drawings.

## Standard Worksheet #9 Sediment Trap Data

**Project Name:** Tomlinson Road (99-284) **Location:** Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Barrel Outlet Elevation (FT)

Rip-rap Protection (Size)

Length (FT) Width (FT)

Max Water Surface Elevation (FT)

**Outlet Basin** 

Date:

08/27

Cadimant Tax	41	#2	1	· ·	
Sediment Trap	#1	#2			
Drainage Area (AC)	1.74	5.00			
Required Capacity (2000CFS/AC)(CFS)	3,480	10,000			
Average Bottom Length (FT)	50	50			
Average Bottom Width (FT)	100	150			
Side Slope (H:V)	3	2			
Top of Embankment Elevation (FT)	180.00	224.00			
Crest of Spillway Elevation (FT)	176.53	222.96			
Clean-out Elevation (700CFS/AC)(CFS)	175.38	220.80			
Flow Length/Width Ratio	1:2	1:3			
Embankment Spillwa	ys				
Outlet Width (FT)					
Outlet Side Slopes					
Riser Pipe Spillways					
Dr (Riser Diameter) (IN)	24	24			
Db (Barrel Diameter) (IN)	18	18			

218.00

223.66

174.60

176.88

12

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Purpose: Design Sediment Trap

#1

Methodology:

Use PA.D.E.P. Sediment & Erosion Control Manual & Erosion Control

Worksheet

I. Design Parameters

A. Disturbed Area:

1.74 AC

Undisturbed Area:

0 AC

Date:

08/23

Total Area:

1.74 AC

**B.** Sediment Storage Volume:

3480 CF

C. Clean-out Volume:

1218 CF

D. Total Storage Volume Require

4698 CF

Stage Storage:

	Contour	Area	Ave. Area	Incr. Vol	Total
	174.6	0		0	0
			1545		
	176	3090		2163	2163
			4828		
	178	6566		9656	11819
			7556		
Berm =	180	8546		15112	26931

Clean-out Volume Elevation:

175.4 FT

Crest of Principal Spillway:

176.5 FT

Dewatering:

Use one (1) - 1" dia. perf. each @

Elev. 175.4 & 175.9

Barrel:

18 IN

Required Flow:

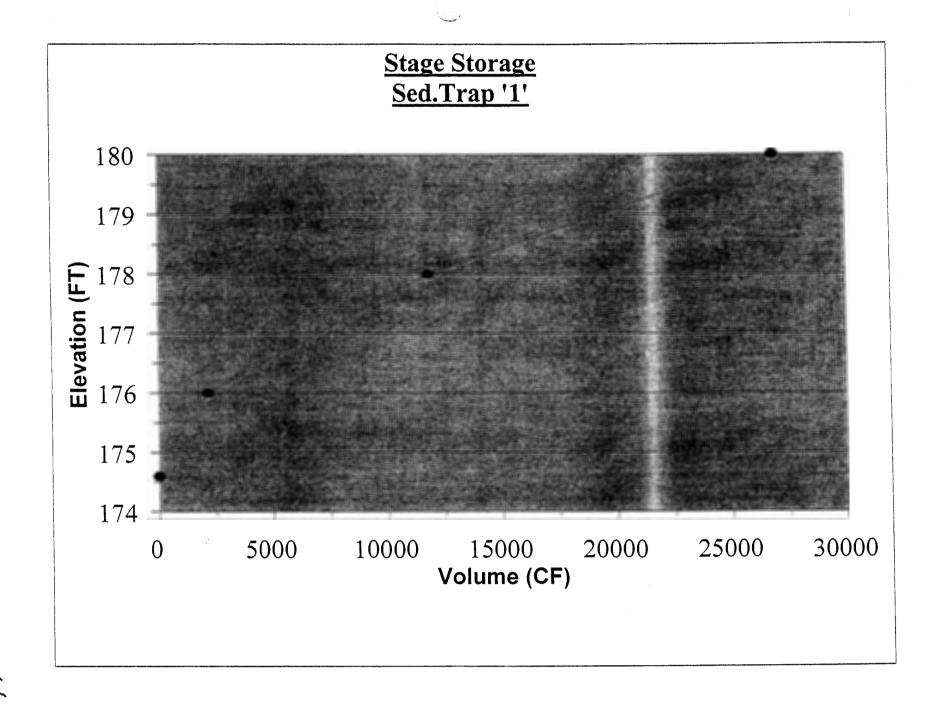
2.61 CFS

Required Head:

0.35 FT

Min. Berm Elev.:

177.88 FT



Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E. Checked By: N/A

Purpose: Design Sediment Trap

#2

08/23

Date:

08/23

Methodology:

Use PA.D.E.P. Sediment & Erosion Control Manual & Erosion Control

Worksheet

I. Design Parameters

A. Disturbed Area:

5.00 AC

Undisturbed Area:

0.00 AC

Total Area:

5.00 AC

B. Sediment Storage Volume:

10000 CF

C. Clean-out Volume:

3500 CF

D. Total Storage Volume Requir

13500 CF

Stage Storage:

	Contour	Area	Ave. Area	Total	
	218	0		0	0
			597.5		
	220	1195		1195	1195
			2860		
	222	4525		5720	6915
			6882.5		
	224	9240		13765	20680
			13025		
Berm =	226	16810		26050	46730

Clean-out Volume Elevation:

220.8 FT

Crest of Principal Spillway:

223.0 FT

Dewatering:

Use one (1) - 1" dia. perf. each @

Elev. 220.8 & 221.8

Barrel:

18 IN

Required Flow:

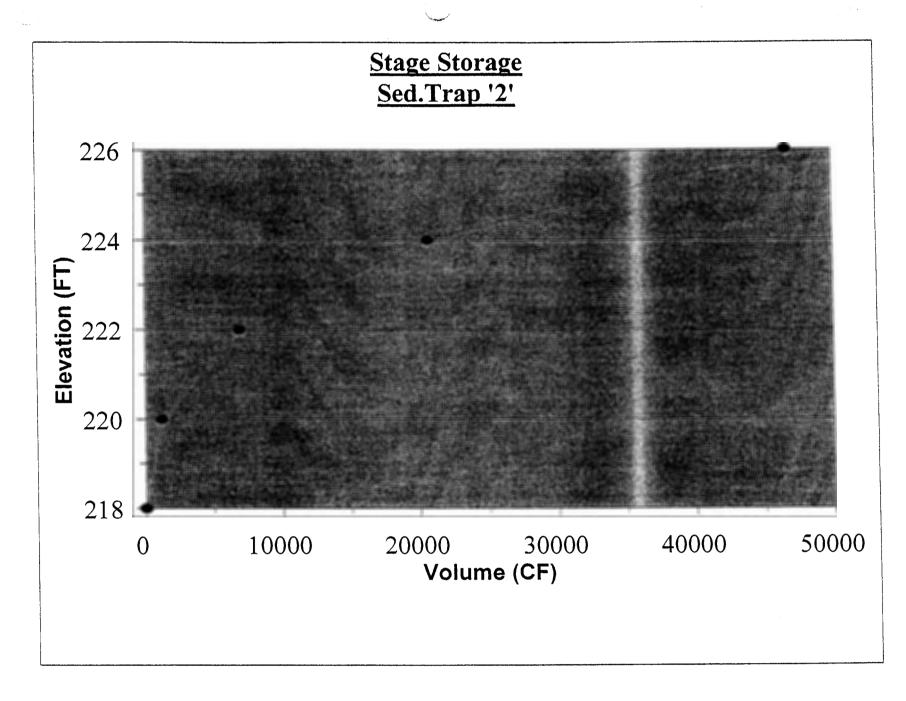
7.5 CFS

Required Head:

0.70 FT

Min. Berm Elev.:

224.66 FT





# Standard worksneet #15 Sediment Basin Capacity Requirements

Project Name: Tomlinson Road (99-284)

Date:

08/25

Location: Lower Moreland Township

Date:

Prepared By: LDM2, P.E.

Checked By: N/A

Sediment Basin Number	#1	#2	#3	
(A) Maximum Total Drainage Area (AC)	5.8	34.7	6.2	
(a) Maximum Total Disturbed Area (AC)	5.8	34.7	6.0	
(Sv) Req'd Settling Volume (5000 x A) (CF)	29,000	173,500	31,050	
(Sd) Req'd Sediment Storage Volume (1000 x a)	5,800	34,700	6,000	
(St) Total Req'd Storage Volume (Sv + Sd) (CF)	34,800	208,200	37,050	
Total Storage Volume Provided (CF) (T.B.)	33,620	185,261	<b>38,43</b> 5	
Required Discharge Capacity (2 x A) (CFS)	11.6	69.4	12.4	
Principal Spillway Capacity (@ Elev '5') (CFS)	8.0	32.9	8.0	
Emergency Spillway Capacity (@ Elev '5') (CFS)	5.7	45.5	5.7	
Emergency Spillway Protective Lining	Miramat	Miramat	Miramat	

# Standard Worksheet #14 Sediment Basin Dimensions and Elevations

Project Name: Tomlinson Road (99-284)
Location: Lower Moreland Township

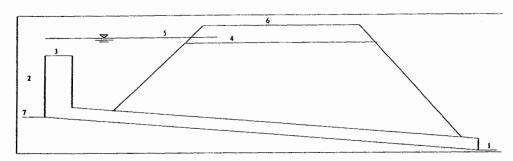
Prepared By: LDM2, P.E.

Checked By:

Date:

08/25

Date:



Sediment Basin Number	#1	#2	#3	
1. Discharge Pipe Elevation (FT)	203.75	181.00	216.50	
2. Sediment Storage Elevation (@ Sd) (FT)	206.5	180.0	218.8	
3. Elevation at Top of Settling Volume (St) (FT)	209.1	185.5	221.9	
4. Emergency Spillway Elevation (FT)	209.6	186.0	222.4	
5. 2 CFS/AC Flow Elevation (FT)	209.7	186.4	222.5	
6. Top of Berm (T.O.B.) Elevation (FT)	211.7	188.4	224.5	
7. Bottom Elevation (During E&S Stage) (FT)	203.8	181.05	216.55	
Average Bottom Width (FT)	150.0	400.0	200.0	
A verage Bottom Length (FT)	50.0	75.0	50.0	
. bankment Top Width (FT)	10	10	10	
Riser Diameter (IN)	24	54	24	
Barrel Diameter (IN)	18	48	18	
Barrel Length (FT)	45.0	10.0	10.0	
Emergency Spillway Width (FT)	10.0	85.0	15.0	
Emergency Spillway Side Slopes (H:V)	2FT:1FT	3FT:1FT	3FT:1FT	

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Purpose: Design Sediment Basin for Basin:

#1

Methodology:

Use PA.D.E.P. Sediment & Erosion Control Manual & Erosion Control

Worksheet

I. Design Parameters

A. Disturbed Area:
Undisturbed Area:
Total Area:

5.8 AC
0.00 AC
5.8 AC
5.8 AC

Sediment Storage Volume:
5800 CF

C. Settling Volume: 29000 CF

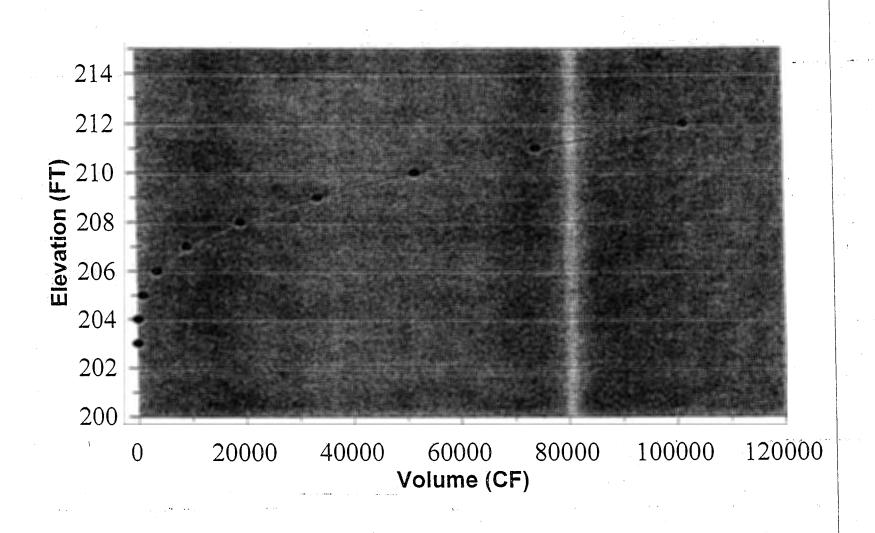
**D.** Total Storage Volume Req'd: 34800 CF

Stage Storage:

Elevation	Area	Avg. Area	Volume	Cum. Vol.	Cum. Vol
(ft)	(sf)	(sf)	(cf)	(cf)	(ac-ft)
			•		-
203.0	0		0	0	0.000
203.5		107.5		54	
204.0	215		107.5	108	0.002
204.5		1012.75	•	614	
205.0	1810.5	:	1012.75	1120	0.026
205.5		2608.25		2424	
206.0	3406		2608.25	3729	0.086
206.5	:	5611.5		6534	
207.0	7817 <sub>5</sub>		5611.5	9340	0.214
207.5		10022.5		14351	
208.0	12228		10022.5	19363	0.445
208.5		14257.25	•	26491	:
209.0	16286.5		14257.3	33620	0.772
209.5		18315.75		42778	
210.0	20345		18315.8	51936	1.192
210.5		22637.5		63254	
211.0	24930		22637.5	74573	1.712
211.5		27222.5		88184	
212.0	29515		27222.5	101796	2.337

Sediment Volume Elevation: 206.5 FT
Settling Volume Elevation: 209.1 FT
Min. E. Spillway Crest Elevation: 209.6 FT

## Stage Storage - S.B. 1



II. Size Principal Riser, Spiliway, Barrei:

Barrel:

18 IN

Required Discharge:

11.6 CFS

Use CMP Riser:

24 IN

Required Head:

0.77 FT

Discharge Invert:

203.00 FT

Discharge Elevation:

203.75 FT

**Compute H.W.:** 

Parameters:

Flow:

11.6 CFS

Riser Diameter:

24 IN

Riser Crest Elevation:

209.1 FT

Emergency Spillway:

209.6 FT

Let H=

0.50 FT

Spillway:

H=

0 FT

Flow=

0.00 CFS

Riser:

H=

0.5 FT

Flow=

6.05 CFS

Total:

Flow=

6.05 CFS

11.6 CFS

Let H=

0.60 FT

Spillway:

H=

0.1 FT

Flow=

5.69 CFS

Ŕiser:

H=

0.6 FT

Flow=

7.95 CFS

Total:

Flow=

13.65 CFS

> 11.6 CFS

H.W.:

209.7 FT

T.O.B.:

211.7 FT

USE.:

212.0 FT

#1

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Crest H.W. Perforation Discharge (Top of Riser to Sediment Clean out Elevation)

Water		Riser							
Surface		1	Orifice Row	Elevation		Discharge			
Elevation	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6	(CFS)		
			·						
206.5	0						0		
207.0	0.058	0					0.058		
207.5	0.081	0.058	0				0.139		
208.0	0.100	0.081	0.058	. 0			0.239		
208.5	0.115	0.100	0.081	0.058	0		0.354		
209.1	0.262	0.115	0.100	0.081	0.058	0	0.616		
209.7	0.357	0.262	0.115	0.100	0.081	0.058	0.973		
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Diameter of Holes:

1 IN

Number of Holes Per Row:

# Standard Worksheet #16 Sediment Basin Discharge Capacity

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

### Principal Spillway Discharge Capacity

Water	:	Ri	ser		Ba	rrel	Principa 1	
Surface	Ori	fice		Weir		Flow	Spillway	
Elevation		Flow	Head	Flow	Head	Flow	Capacity	
Dio vacion	11000	110.						
206.5	0	0				-	0	
207.0	0.5	0.058					0.058	
207.5	1.0	0.139			-		0.139	
208.0	1.5	0.239					0.239	
208.5	2.0	0.354				· · ·	0.354	
209.1	2.6	0.616	0	0	5.3	18.12	0.616	
209.7	3,2	0.973	0.6	7.95	5.9	19.11	8.927	
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Crest H.W.

U0/24

Project Name: Tomlinson Road (99-284) Location: Lower Moreland Township

57.9 HRS

Time:

Prepared By: LDM2, P.E. Checked By: N/A

Water		Incr.	I	T		T
Surface	Storage	Storage	l	Average		Accum.
Elevation			Discharge	Discharge	Time	Time
2.0140.01	10 March 19			;		
206.5	6534	-	0	_	-	0
207.0	9340	2806	0.058	0.029	27.1	27.1
207.5	14351	5011	0.139	0.098	14.2	41.2
208.0	19363	5012	0.239	0.189	7.4	48.6
208.5	26491	7128	0.354	0.296	6.7	55.3
209.1	29499	3008	0.616	0.485	1.7	57.0
209.7	44457,	14958	8.927	4.772	0.9	57.9
			<u>}</u> .			
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L						

2.4 Days

 $\mathbf{OK}$ 

**KHOV0542** 

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Date: U8/25

Prepared By: LDM2, P.E.

Checked By: N/A

Purpose: Design Sediment Basin for Basin:

#2

Methodology: Use PA.D.E.P. Sediment & Erosion Control Manual & Erosion Control

Worksheet

I. Design Parameters

A. Disturbed Area: 34.70 AC
Undisturbed Area: 0.00 AC
Total Area: 34.70 AC

B. Sediment Storage Volume: 34700 CF

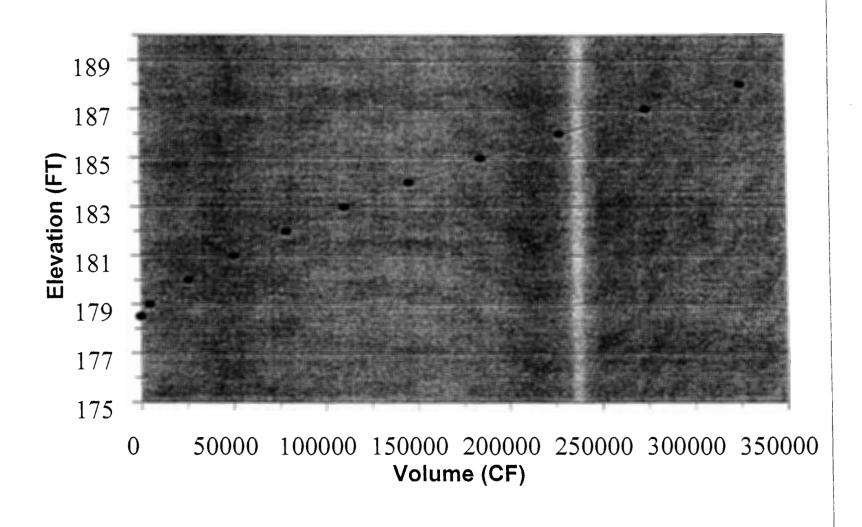
C. Settling Volume: 173500 CF

D. Total Storage Volume Req'd: 208200 CF

Stage Storage:

	Elevation (ft)	Area (sf)	Avg. Area (sf)	Volume (cf)	Cum. Vol.	Cum. Vol.
-	(1-5)	(01)		(-)	(**/	(3.5.17)
	178.5	0	9793	0	0	0.000
	179.0	19586	21246	4896.5	4897	0.112
	180.0	22906	24653	21246	26143	0.600
	181.0	26400	28147	24653	50796	1.166
	182.0	29894	31743	28147	78943	1.812
	183.0	33592	35441	31743	110686	2.541
	184.0	37290	39134.5	35441	146127	3.355
,	185.0	<b>409</b> 79°	42823.5	39134.5	185261	4.253
	186.0	44668	46809.25	42823.5	228085	5.236
	187.0	48950.5	51091.75	46809.3	274894	6.311
	188.0	53233	31071.73	51091.8	325986	7.484
S	Sediment V Settling Vo Ain. E. Spi	lume Elev		180.0 185.5 186.0	FT	

### Stage Storage - S.B. 2



II. Size Principal Riser, Spillway, Barrel:

Barrel:

48 IN

Required Discharge: 69.4 CFS

Use CMP Riser: 54 IN

Required Head: 1.48 FT

Discharge Invert: 179.00 FT Discharge Elevation: 181.00 FT

Compute H.W.:

Parameters:

Flow: 69.4 CFS Riser Diameter: 54 IN

Riser Crest Elevation: 185.5 FT Emergency Spillway: 186.0 FT

Let H=0.80 FT

Spillway: H= 0.3 FT

Flow= 29.57 CFS

Riser: H= 0.8 FT

Flow= 27.56 CFS

Total: Flow= 57.13 CFS < 69.4 CFS

Let H= 0.90 FT

Spillway: H= 0.4 FT

Flow= 45.53 CFS

Riser: H= 0.9 FT

Flow= 32.88 CFS

Total: Flow= 78.41 CFS > 69.4 CFS

**H.W.**: 186.4 FT **T.O.B.**: 188.4 FT

08/25

#2

08/25

Standard Worksheet #17 Sediment Basin Dewatering Discharge Capacity

Project Name: Tomlinson Road (99-284) Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Crest H.W.

Perforation Discharge (Top of Riser to Sediment Clean out Elevation)

Water			Total				
Surface			Orifice Row				Discharge
Elevation	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6	(CFS)
180.0	0						0
180.5	0.192	0					0.192
181.0	0.271	0.192	0				0.463
181.5	0.332	0.271	0.192	0			0.796
182.0	0.384	0.332	0.271	0.192	0		1.179
185.5	2.074	0.384	0.332	0.271	0.192	0	3.253
186.4	2.351	2.074	0.384	0.332	0.271	0.192	5.604
	Diameter of	of Holes:	1	ĪN			

Number of Holes Per Row:

### Standard Worksheet #16 Sediment Basin Discharge Capacity

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

### Principal Spillway Discharge Capacity

							Principa
Water		Ri	ser		Barrel		1
Surface	Ori	fice	W	Weir		Flow	Spillway
Elevation	Head	Flow	Head	Flow	Head	Flow	Capacity
180.0	0	0			<u> </u>		0
180.5	0.5	0.192					0.192
181.0	1.0	0.463					0.463
181.5	1.5	0.796					0.796
182.0	2.0	1.179					1.179
185.5	5.5	3.253	0	0	4.5	139.70	3.253
186.4	6.4	5.604	0.9	32.88	5.4	153.03	38.485

H.W.

Crest

KHOV0547

#2

### Standard Worksheet #18 Sediment Basin Dewatering Time Data

**Project Name:** Tomlinson Road (99-284) **Location:** Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Water		Incr.				
Surface	Storage	Storage		Average		Accum.
Elevation	Volume	Volume	Discharge	Discharge	Time	Time
180.0	26143	-	0	-	-	0
180.5	38469	12326	0.192	0.096	35.7	35.7
181.0	50796	12327	0.463	0.328	10.5	46.1
181.5	64869	14073	0.796	0.629	6.2	52.4
182.0	78943	14074	1.179	0.988	4.0	56.3
185.5	206672	127729	3.253	2.216	16.0	72.3
186.4	246809	40137	38.485	20.869	0.5	72.9
				·		
						4
		1				

Time:

72.9 HRS

=

3.0 Days

OK

KHOV0548

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Purpose: Design Sediment Basin for Basin:

#3

Date.

Methodology:

Use PA.D.E.P. Sediment & Erosion Control Manual & Erosion Control

Worksheet

I. Design Parameters

A. Disturbed Area:	6.00 AC
Undisturbed Area:	0.21 AC
Total Area:	6.21 AC

B. Sediment Storage Volume: 6000 CF

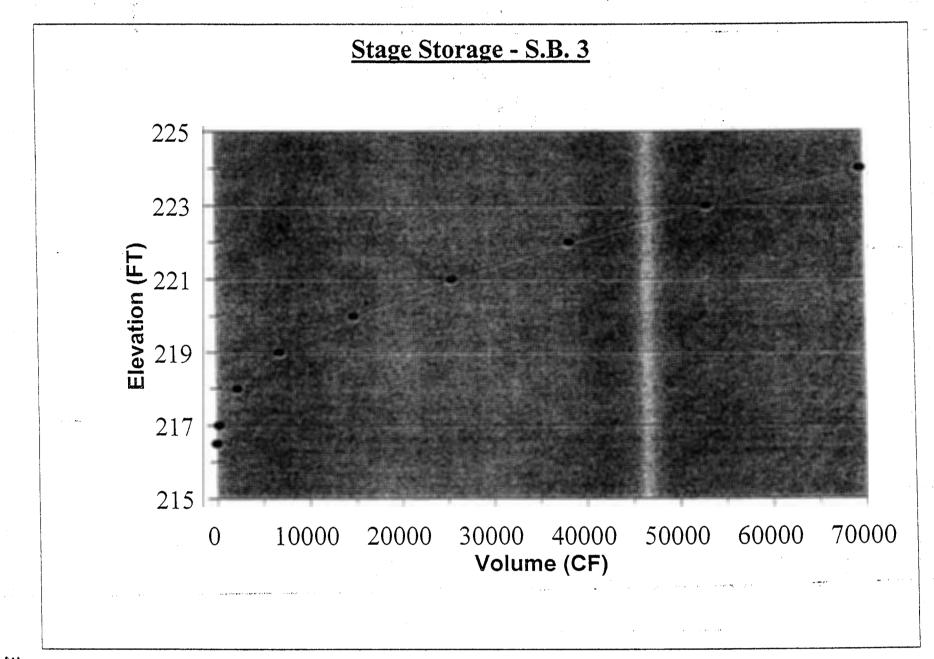
C. Settling Volume: 31050 CF

D. Total Storage Volume Req'd: 37050 CF

Stage Storage:

Elevation	Area	Avg. Area	Volume	Cum. Vo	Cum. Vol.
(ft)	(sf)	(sf)	(cf)	(cf)	(ac-ft)
216.5			A	0	0.000
210.3	·	496.665	U	U	0.000
217	993.33	1,701,005	248.333	248.3	0.006
217.5		1986.665		1241.7	
218	2980		1986.67	2235.0	0.051
218.5		4642.5		4556.2	
219	6305		4642.5	6877.5	0.158
219.5	1	7967.5		10861.2	
220	9630		7967.5	14845.0	0.341
220.5		10712.5	•	20201.2	
221	11795		10712.5	25557.5	0.587
221.5		12877.5	į	31996.2	
222	13960		12877.5	38435.0	0.882
222.5		14807.5		45838.7	
223	15655		14807.5	53242.5	1.222
223.5		16502.5		61493.7	
224	17350		16502.5	69745.0	1.601
	(ft) 216.5 217 217.5 218 218.5 219 219.5 220 220.5 221 221.5 222 222.5 223 223.5	(ft) (sf)  216.5 0  217 993.33  217.5  218 2980  218.5  219 6305  219.5  220 9630  220.5  221 11795  221.5  222 13960  222.5  223 15655  223.5	(ft) (sf) (sf)  216.5 0 496.665  217 993.33 217.5 1986.665  218 2980 218.5 4642.5  219 6305 219.5 7967.5 220 9630 220.5 10712.5 221 11795 221.5 12877.5 222 13960 222.5 14807.5 223 15655 223.5 16502.5	(ft)         (sf)         (sf)         (cf)           216.5         0         0           496.665         248.333           217.5         1986.665           218         2980         1986.67           218.5         4642.5           219         6305         4642.5           219.5         7967.5         7967.5           220         9630         7967.5           221         11795         10712.5           221.5         12877.5         12877.5           222         13960         12877.5           223         15655         14807.5           223.5         16502.5	(ft)         (sf)         (sf)         (cf)         (cf)           216.5         0         0         0           496.665         248.333         248.3           217.5         1986.665         1241.7           218         2980         1986.67         2235.0           218.5         4642.5         4556.2           219         6305         4642.5         6877.5           219.5         7967.5         10861.2           220         9630         7967.5         14845.0           220.5         10712.5         20201.2           221         11795         10712.5         31996.2           222.5         12877.5         38435.0           222.5         14807.5         45838.7           223         15655         14807.5         53242.5           223.5         16502.5         61493.7

Sediment Volume Elevation: 218.75 FT
Settling Volume Elevation: 221.90 FT
Min. E. Spillway Crest Elevation: 222.40 FT



Barrel:

18 IN

Required Discharge

12.42 CFS

Use CMP Riser:

24 IN

Required Head:

0.81 FT

Discharge Invert:

216.50 FT

Discharge Elevation

217.25 FT

### Compute H.W.:

Parameters:

Flow:

Riser Diameter:

12.42 CFS 24 IN

Riser Crest Elevation:

221.9 FT

**Emergency Spillway:** 

222.4 FT

Let H= 0.50 FT

Spillway:

0 FT H=

Flow=

0.00 CFS

Riser:

0.5 FT H=

Flow=

6.05 CFS

Total:

Flow= 6.05 CFS

12.42 CFS

VVI 43

Let H= 0.60 FT

Spillway:

0.1 FT H=

Flow=

H=

5.69 CFS

Riser:

0.6 FT

7.95 CFS

Total:

Flow=

Flow=

13.65 CFS

12.42 CFS

H.W.:

222.5 FT

**T.O.B.:** 

224.5 FT

### Standard Worksheet #17 Sediment Basin Dewatering Discharge Capacity

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Crest H.W. Perforation Discharge (Top of Riser to Sediment Clean out Elevation)

Water	1,4		Riser	.:			Total
Surface		<b>!</b>	Orifice Row E	levation	No. of the		Discharge
Elevation	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6	(CFS)
							1.5
218.8	0	:					0
219.3	0.058	0					0.058
219.8	0.081	0.058	. 0				0.139
220.3	0.100	0.081	0.058	0			0.239
220.8	0.115	0.100	0.081	0.058	0		0.354
221.9	0.350	0.115	0.100	0.081	0.058	0	0.703
222.5	0.431	0.350	0.115	0.100	0.081	0.058	1.134
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	Diameter		1 1				

Diameter of Holes:

1 IN

Number of Holes Per Row:

3

### Standard Worksheet #16 Sediment Basin Discharge Capacity

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

### Principal Spillway Discharge Capacity

							-1
Water	-	D	iser		D <sub>o</sub>	ırrel	Principa
Water Surface	Ori			oir ·			Spillway
Elevation	Head			Weir Head Flow		Pipe Flow Head Flow	
Dievation	Head	TIOW	Ticau	TIOW	Ticad	Tiow	Capacity
218.8	0	0				<del> </del>	0
219.3	0.5	0.058			1	,	0.058
219.8	1.0	0.139					0.139
220.3	1.5	0.239				· · · · · ·	0.239
220.8	2.0	0.354			<b>†</b>		0.354
221.9	3.2	0.703	0	0	4.7	16.90	0.703
222.5	3.8	1.134	0.6	7.95	5.3	17.95	9.089
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Crest H.W.

# Standard Worksheet #18 Sediment Basin Dewatering Time Data

**Project Name:** Tomlinson Road (99-284) **Location:** Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

	Water		Incr.				
	Surface	Storage	Storage		Average		Accum.
_	Elevation	Volume	Volume	Discharge	Discharge	Time	Time
	4.7.1 a.j	•		,	:		
	218.75	5717	-	0	-	-	- 0
	219.25	8869	3152	0.058	0.029	30.4	30.4
	219.75	12853	3984	0.139	0.098	11.3	41.7
	220.25	17523	4670	0.239	.0.189	6.9	48.6
	220.75	22879	5356	0.354	0.296	5.0	53.6
-	221.90	37147	14268	0.703	0.529	7.5	61.1
	222.50	45839	8692	9.089	4.896	0.5	61.6
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Time:

61.6 HRS

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2.6 Days

OK

### **EROSION AND SEDIMENTATION CONTROL PLAN**

PAGE	$\sim$ $\sim$ $\sim$	
PALTE.	OF	

# STANDARD WORKSHEET # 19 REQUIRED DISCHARGE CAPACITY FOR CHANNELS

PROJECT NAME			10 SITE!		
LOCATION:	Lower Moreland , T	wa			
PREPARED BY:			8-28-00	_sheet #_	OF_
CHECKED BY:		_ DATE:		<del>-</del> :	
Note: List runoff	for each identified (#) sub-	area that	will be used t	o size a chan	inel.
	•		••		
# Te	mporary = 1.60 cfs/acre x		acres =	Ē	cfs
	rmanent = 2.75 cfs/acre x		acres =	2.5	cfs
# Те	mporary = 1.60 cfs/acre x		acres =		cfs
	rmanent = 2.75 cfs/acre x		acres =	1,2	cfs
# Te	mporary = 1.60 cfs/acre x _		acres =	•	cfs
	rmanent = 2.75 cfs/acre x _				cfs
"	indicate 2770 cray dete x	٠		:	
#Te	mporary = 1.60 cfs/acre x_	·	acres =	- '	cfs
# Te # Pe	rmanent = 2.75 cfs/acre x _		acres =		cfs
# Te	mporary = 1.60 cfs/acre x _		acres =		cfs
# Te	rmanent = 2.75 cfs/acre x		acres =		cfs
	mporary = 1.60 cfs/acre x _		•		cfs
# Ter	rmanent = 2.75 cfs/acre x _	•	acres =		cfs
# Ter	mporary = 1.60 cfs/acre x _		acres =		cfs
# Ter	manent = 2.75 cfs/acre x _		acres =	:	cfs
# Ter	mporary = 1.60 cfs/acre x _		acres =	-	cfs
	manent = 2.75 cfs/acre x				cfs
# Ten	nporary = 1.60 cfs/acre x	3	nores =		cfs
# Per	manent = $2.75$ cfs/acre x _		acres =		cfs
и	nnono 1 CO -f-/ w		0.000.		cfs
	nporary = 1.60 cfs/acre x _ manent = 2.75 cfs/acre x _				efs
11 10:	manent - 2.70 cts/acte x				<b></b>
# Ten	aporary = 1.60 cfs/acre x _		acres =		cfs
# Per	manent = $2.75$ cfs/acre x _		acres =		cfs
# Tem	nporary = 1.60 cfs/acre x _		acres =		cfs
	manent = 2.75 cfs/acre x				cfs

### STANDARD WORKSHEET # 22 CHANNEL DESIGN DATA

PROJECT NAME:	TOMINSON ROAD	(AKA PINE ROAD	SITE)	
	LOWER MORELAND			
PREPARED BY:	LOM	DATE: 8-28-00		
CHECKED BY:		DATE:	_	

					and the second
1	1	2	Z	3	3
11,			- 5		
3			->		
5:			->		y."
2			> .		
2.5:1		100	<b>→</b>		
0.92	1.12	0.58	0.70	1	
0.15	0.18	0.10	0.12		
2%			->		
No	yes	NO	yes		
0.022	0.03	0.022	0.03		
2.7	2.2	2.1	1.7		) (5) (5) (5)
3	6	3	6		
2.5	2.5	1.2	1,2		
66	15		- (1		
Y			>		
	1			·	
2	2	2	2		
	11 3 5 2 2.5:1 0.92 2% NO 0.022 2.7 3 2.5 1	11 - 3 - 5 - 2 - 2.5:1 - 0.92 1.12 0.15 0.18 2% - 2.5 0.03 2.7 2.2 3 6 2.5 2.5	11	3	11

<sup>\*</sup> Slopes may not be averaged

<sup>\*\*</sup> For vegetated channels, provide data for temporary linings and vegetated conditions in separate columns.

SECTION A-A

### STANDARD WORKSHEET # 24 RIPRAP APRON OUTLET PROTECTION

LOCATION: PREPARED BY:

CHECKED BY:

PROJECT NAME: Tomeinson ROAD (AKA PINE ROAD SITE) Lower Moreland Township DATE:

LOM DATE:

Geotextile SECTION B-B PLAN La d = 1.5 times the maximum stone diameter but not less than 6 inches. Geotextile

OUTLET NO.	PIPE DIA. Do (in)	TAILWATER CONDITION (Max or Min)	Q (CFS)	V* (FPS)	RIPRAP SIZE	La (ft)	W (ft)
Ew 44	42"20	Max.	40	12.5	R-6	21	32
" 77	36"		60	13.5	R-7	23	32
. 86	15"		10	12.4	R-6	14	18
" 89	/8"		7	5,6	R-3	8	13
. 94	15"		3	4.3	R-2	8	12
., 96	15" V	<b>V</b>	2	10.3	R-5	12	17
							-

The anticipated velocity (V) should not exceed the maximum permissible shown in the Program Manual for the proposed riprap protection.

### STANDARD WORKSHEET # 24 RIPRAP APRON OUTLET PROTECTION

PROJECT NAME: Tomenson ROAD (AKA PINE ROAD SITE)

LOCATION: Lower Moreland Township, PA

PREPARED BY: Lom DATE: 8-28-00 DATE:

B

Geotextile

SECTION B-B

d = 1.5 times the maximum stone diameter but not less than 6 inches.

SECTION A-A

BASIN 1) BASIN 2) BASIN 3)

	OUTLET NO.	PIPE DIA. Do (in)	TAILWATER CONDITION (Max or Min)	Q (CFS)	V* (FPS)	RIPRAP SIZE	La (ft)	(ft)
)	Ew 97	18" Rup	MAX	5	9.1	R-5	12	17
	" 98	48"		75'	13.8	R-7	22	35
	" 99	18"		10	7.8	R-4	//	16
	Temp:					·		
	SED BASINI	18"cmp		8	6.2	R-3	න	13
	SEO TRAPZ	18" cmp	<b>\</b>	8	7.9	R-4	11	16

The anticipated velocity (V) should not exceed the maximum permissible shown in the Program Manual for the proposed riprap protection.

# Worksheet Worksheet for Trapezoidal Channel

Project Description	on
Project File	u:\99284\engr\e&s\swales.fm2
Worksheet	Permanent Swale #1 - Bare Earth Cond.
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data	es di esti di feri	_
Mannings Coefficient	0.022	
Channel Slope	2.00 %	
Left Side Slope	3.000000 H:V	
Right Side Slope	3.000000 H:V	
Bottom Width	5.00 ft	
Discharge	2.50 cfs	

Results		7 17
Depth	0.17 ft	
Flow Area	0.92 ft <sup>2</sup>	1
Wetted Perimeter	6.06 ft	
Top Width	6.00 ft	
Critical Depth	0.19 ft	
Critical Slope	1.28 %	
Velocity	2.72 ft/s	
Velocity Head	0.11 ft	
Specific Energy	0.28 ft	
Froude Number	1.22	
Flow is supercritical.		-

# Worksheet Worksheet for Trapezoidal Channel

Project Description	n
Project File	u:\99284\engr\e&s\swales.fm2
Worksheet	Permanent Swale #1 - Vegetated Cond.
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Mannings Coefficient	0.030	
Channel Slope	2.00	%
Left Side Slope	3.0000	00 H : V
Right Side Slope	3.0000	00 H : V
Bottom Width	5.00	ft
Discharge	2.50	cfs

0.20 ft	
1.12 ft <sup>2</sup>	
6.27 ft	_
6.20 ft	
0.19 ft	
2.39 %	
2.23 ft/s	
0.08 ft	
0.28 ft	
0.92	
	1.12 ft <sup>2</sup> 6.27 ft 6.20 ft 0.19 ft 2.39 % 2.23 ft/s 0.08 ft 0.28 ft

KHOV0560

1/2

# Worksheet Worksheet for Trapezoidal Channel

Project Description	on ·
Project File	u:\99284\engr\e&s\swales.fm2
Worksheet	Permanent Swale #2 - Bare Earth Cond.
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data			ľ
Mannings Coefficient	0.022		_
Channel Slope	2.00	%	
Left Side Slope	3.0000	00 H : V	
Right Side Slope	3.0000	00 H : V	
Bottom Width	5.00	ft	
Discharge	1.20	cfs	

Results	
Depth	0.11 ft
Flow Area	0.58 ft <sup>2</sup>
Wetted Perimeter	5.69 ft
Top Width	5.65 ft
Critical Depth	0.12 ft
Critical Slope	1.48 %
Velocity :	2.08 ft/s
Velocity Head	0.07 ft
Specific Energy	0.18 ft
Froude Number	1.15
Flow is supercritical.	

KHOV0561

# Worksheet Worksheet for Trapezoidal Channel

			_
	<b>Project Description</b>		
_	Project File	u:\99284\engr\e&s\swales.fm2	_
	Worksheet	Permanent Swale #2 - Vegetated Cond.	
	Flow Element	Trapezoidal Channel	
	Method	Manning's Formula	
	Solve For	Channel Depth	

Input Data	
Mannings Coefficient	0.030
Channel Slope	2.00 %
Left Side Slope	3.000000 H:V
Right Side Slope	3.000000 H:V
Bottom Width	5.00 ft
Discharge	1.20 cfs

Results	
Depth	0.13 ft
Flow Area	0.70 ft <sup>2</sup>
Wetted Perimeter	5.82 ft
Top Width	5.78 ft
Critical Depth	0.12 ft
Critical Slope	2.75 %
Velocity	1.71 ft/s
Velocity Head	0.05 ft
Specific Energy	0.18 ft
Froude Number	0.86
Flow is subcritical.	

KHOV0562

R-7

14.5

1,2500

15,00

Tomlinson Road

JOB #: 99-284

Prepared By: LDM2, P.E.

Rip-Rap Apron Design

----RIP-RAP---------FILTER----------RIP-RAP----**dMAX** THICK SIZE THICK MAX V d50 d50 SIZE (FPS) (lN) (IN) (IN) (FT) (IN) NONE NONE 0 0 NONE NONE 3 FS-1 0,1250 1.50 3.00 R-2 5 4.5 9 FS-2 6.5 0.2500 3,00 6.00 R-3 R-4 18 FS-2 9,0 0.5000 6.00 12.00 27 FS-2 0.7500 9,00 18.00 R-5 11.5 1.0000 24.00 R-6 36 FS-3 8 13.0 12.00 30.00

- dMAX " IS FROM PA-DEP MANUAL TABLE 5.11 PAGE 5.45
- " THICK " IS 1.5 x " dMAX "
- FILTER STONE " SIZE " AND " THICK " IS FROM TABLE 4.8 PAGE 4.32

FS-3

- GEOTEXTILE MAY BE USED AS AN ALTERNATIVE TO FILTER STONE
- RIP-RAP IS REQUIRED FOR OUTLET VELOCITIES > 3 FPS
- " MAX V " IS FROM " QUARRIED STONE FOR EROSION AND SEDIMENTATION CONTROL " NATIONAL CRUSHED STONE ASSOC. MAY 1982
- APRON " W " = " L " + 3 x " PIPE DIA "

#### STORM SEWER OUTLET PROTECTION

DESCRIPTION APRON LENGT		Ri TABLE *	p-Rap Apro	n Design	*****	*******	*******	********	********	********		OB # : 99 ed By: Li	
LOW DEPTH	(IN)					\/=	LOCITY		- >				
	Ó	5,5	6	7	8	9	10	(fp:	s) 12	13			
							10		12	13	14	14.5	>14.5
	0	7.8	8.5	9.6	10.7	11.6	12.4	13.1	13.7	14.3	14.9	15.2	NG
	12	7.8	8.5	9.6	10.7	11.6	12.4	13.1	13.7	14.3	14.9	15.2	NO
	13	8.6	8.6	9.7	10.8	11.8	12.7	13.5	14.3	14.9	15.6	15.9	NC
	14	8.8	8.8	9.7	11.0	12.1	13.1	14.0	14.8	15.5	16.2	16.5	NO
	15	9.0	9.0	9.7	11.2	12.4	13.5	14.4	15.3	16.1	16.9	17.2	NG
	16	9.5	9.5	10.5	12.0	13.3	14.4	15,4	16.3	17.1	17.9	18.3	NG
	17	10.0	10.0	11.4	12.8	14.1	15.3	16.3	17.2	18.1	18.9	19.3	NG
	18	10.4	10.4	12.2	13.7	15.0	16.2	17.2	18.2	19.1	19.9	20.3	NG
	19	10.4	12.6	12.6	14.1	15.5	16.8	17.9	18.9	19.8	20.7	21.1	NG
	20	10.4	12.9	12.9	14.6	16.0	17.3	18.5	19.6	20.6	21.5	21.9	NG
	21	10.4	13.3	13,3	15.1	16.6	17,9	19.2	20.3	21.3	22.3	22.7	NG
	22	10.4	13.6	13.6	15.4	16.9	18.4	19.7	20.8	21.9	22.9	23.4	NG
	23	10.4	13.8	13.8	15.7	17.3	18.8	20.1	21.4	22.5	23.6	24.1	
	24	10.4	14.0	14.0	16.0	17.7	19.2	20.6	21,9	23.1	24.2	24.1	NG NG
	25	10.4	14.0	14.0	16.3	18.1	19.7	21.2	22.5	23.8	25.0	24.6 25.6	
	26	10.4	14.0	14.0	16.7	18.6	20.3	21.8	23.2	24.5	25.8		NG
	27	10.4	14.0	14.0	17.1	19.0	20.8	22.4	23.8	25.2	25.6 26.6	26.5	NG
	28	10.4	14.0	14.0	17.3	19.3	21.1	22.8	24.3	25.2	27.3	27.3	NG
	29	10.4	14.0	14.0	17.4	19.6	21.5	23.2	24.8	26.4	28.0	28.0 28.8	NG
	30	10.4	14.0	14.0	17.6	19.9	21.9	23.7	25.3	27.0	28.7	29.5	NG
	32	10.4	14.0	14.0	18.3	20.6	22.8	24.7	26.5	28.3	30.1		NG
	34	10.4	14.0	14.0	18.9	21.4	23.7	25.7	27.6	29.6		31,0	NG
	36	10.4	14.0	14.0	19.6	22.2	24.6	26.7	28.7	30.8	31.5 32.9	32.5	NG
	38	10.4	14.0	14.0	19.6	22.7	25.2	27.5	29.7	31.9	34.1	33.9 35.2	NG
	40	10.4	14.0	14.0	19.6	23.2	25.9	28.2	30.6	32.9	35.2	36.4	NO
	42	10.4	14.0	14.0	19.6	23.8	26.5	29.0	31.5	34.0	36.4	37.7	NO
	44	10.4	14.0	14.0	19.6	23.8	27.1	29.7	32.3	34.9	37.4	38.7	NO
	46	10.4	14.0	14.0	19.6	23.8	27.7	30.4	33.1	35.8	38.5		NO
	48	10.4	14.0	14.0	19.6	23.8	28.3	31.1	33.9	36.7	39.5	39.8	NO
	50	10.4	14.0	14.0	19.6	23.8	28.3	31.7	34.5	37.3	40.0	40.9	NO
	52	10.4	14.0	14.0	19.6	23.8	28.3	32.2	35,1	37.3 37.9	40.0	41.3	NO
	54	10.4	14.0	14.0	19.6	23.8	28.3	32.8	35.7	38.4	40.5	41.7	NO
	56	10.4	14.0	14.0	19.6	23.8	28.3	33.4	36.5	38.4 39.3		42.1	NO
$\overline{\mathbf{x}}$	58	10.4	14.0	14.0	19.6	23.8	28.3	34,1	37.2		41.9	43.1	NG
	60	10.4	14.0	14.0	19.6	23.8	28.3	34.7		40.1	42.8	44.1	NG
Ħ				, •	. 5,5	20.0	20,5	34.7	38.0	41.0	43.7	45.0	NO

EHV- 059

HOV0564 46

#### STORM SEWER OUTLET PROTECTION

PROJECT:		Tomlinson	n Road								JOB#:	99-284	
DESCRIPTION:		Rip-Rap A	pron Design							Prepa	red By:	LDM2, P.E.	
OUTLET	PIPE	PIPE	Q 25 YR		FLOW	VEL	APRON	-	RIP-RAP		-	FILTER-	•
#	DIA	SLOPE	FLOW	" n "	DEPTH	@DEPTH	L	W	THICK	SIZE	d50	THICK	SIZE
	(in)	('/')	(cfs)		(in)	(fps)	(ft)	(ft)	(in)		(in)	(in)	
EW-44 (BAS 2)	42	0.0122	60.0	0.012	21.0	12.5	21	32	36	R-6	12	8	FS-3
EW-77 (BAS 2)	36	0.0150	60,0	0.012	21.7	13.5	23	32	45	R-7	15	10	FS-3
EW-86 (BAS 3)	15	0.0400	10.0	0.012	9.4	12.4	14	18	36	R-6	12	8	FS-3
EW-89 (BAS 3)	18	0.0063	7.0	0.012	11.9	5.6	8	13	9	R-3	3	3	FS-2
EW-94 (BAS 1)	15	0.0052	3.0	0.012	8.3	4.3	8	12	5	R-2	1.5	0	FS-1
EW-96 (BAS 1)	15	0.0800	2.0	0.012	3.2	10.3	12	17	27	R-5	9	6	FS-2
EW-97 (BAS 1-OS)	18	0.0284	5.0	0.012	6.3	9.1	12	17	27	R-5	9	6	FS-2
EW-98 (BAS 2-OS)	48	0.0138	75.0	0.012	21.4	13.8	22	35	45	R-7	15	10	FS-3
EW-99 (BAS 3-OS)	18	0.0118	10.0	0.012	12.3	7.8	11	16	18	R-4	6	4	FS-2
Temp - Sed Basin #1	18	0.0300	8.0	0.024	12.3	6.2	8	13	9	R-3	3	3	FS-2
Temp - Sed Trap #2	18	0.0550	8.0	0.024	10.0	7.9	11	16	18	R-4	6	4	FS-2

EHV-060

	Doylestown, PA 1890 (215) 345-9400	l	Qualicitown, PA 18951 (215) 538-7880		10-11-00	108799784L			
				1	KAREN T	HOMPSON			
TO Mo	INTGOMER	y coun	MY CONSERVATIO	H DETRICT!	PINE ROP				
2 Table 1			SUITEB		LOWER MORELAND TOWNSHIP				
			. •		MONTGOMERY COUNTY				
Co	UEGEVILL	,PA	19426						
				L					
WE ARE S	ENDING YOU	X Atta	ched 🗆 Under sepa	arate cover via		the following items:			
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	☐ Copy of lett	er	☐ Change order	O					
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			•	SIGN	IED: John La	cko			
			If enclosures are no	t as noted, kindly	notify (fs at once.	EHV- voi			



IN VATIVE ENGINEERING

September 26, 2000

CERTIFIED MAIL NO. 7099 3220 0007 6774 8456

 Buckingham Professional Building P.O. Box 904
 Doylestovin, PA 18901
 215 345-9400
 Fax 215 794-3987

The Atrium of Quakertown 127 S. 5th Street, Suite 300 Quakertown, PA 18951 215 538-7880 Fax 215 538-3977

www.bjengineers.com

Ms. Alison Rudolf, Township Manager Lower Moreland Township 640 Red Lion Road Huntingdon Valley, Pennsylvania 19006

SUBJECT: ACT 14 NOTIFICATION FOR NPDES PERMIT APPLICATION

PINE ROAD SITE

LOWER MORELAND, MONTGOMERY COUNTY, PA

PROJECT NO. 99284L

Dear Ms. Rudolf:

Please be advised that Hovnanian Pennsylvania, Inc. is making application to the PADEP to obtain an NPDES stormwater permit authorizing discharge of stormwater during a construction activity. The project is located on Pine Road, approximately a quarter mile southwest of Tomlinson Road. The project consists of the construction of one hundred one (101) single-family detached dwellings, with associated roads, open space and stormwater management improvements. Three (3) proposed stormwater detention/sedimentation basins will be constructed to reduce stormwater runoff from the development and to provide sediment storage during construction.

Approximately forty-seven (47) acres of earth disturbance will occur during construction. An erosion and sedimentation control plan will be submitted to the Montgomery County Conservation District.

Very truly yours,

John M. Hako, P.E.

JMH/smf

U:\99284\documents\NPDES-Act14.wpd



# Boucher & James, Inc.

ENGINEERING

 Buckingham Professional Building P.O. Box 904
 Doylestown, PA 18901
 215 345-9400

Fax 215 794-3987

September 26, 2000

CERTIFIED MAIL NO. 7099 3220 0007 6774 8463

The Atrium of Quakertown 127 S. 5th Street, Suite 300 Quakertown, PA 18951 215 538-7880 Fax 215 538-3977

Mr. Robert Graf Montgomery County Chief Operating Officer P.O. Box 311 Norristown, Pennsylvania 19404

www.bjengineers.com

**SUBJECT:** 

**ACT 14 NOTIFICATION FOR NPDES PERMIT APPLICATION** 

PINE ROAD SITE

LOWER MORELAND, MONTGOMERY COUNTY, PA

PROJECT NO. 99284L

Dear Mr. Graf:

Please be advised that Hovnanian Pennsylvania, Inc. is making application to the PADEP to obtain an NPDES stormwater permit authorizing discharge of stormwater during a construction activity. The project is located on Pine Road, approximately a quarter mile southwest of Tomlinson Road. The project consists of the construction of one hundred one (101) single-family detached dwellings, with associated roads, open space and stormwater management improvements. Three (3) proposed stormwater detention/sedimentation basins will be constructed to reduce stormwater runoff from the development and to provide sediment storage during construction.

Approximately forty-seven (47) acres of earth disturbance will occur during construction. An erosion and sedimentation control plan will be submitted to the Montgomery County Conservation District.

Very truly yours,

John M. Hako, P.E.

JMH/smf

U:\99284\documents\NPDES-Act14.wpd

EHV- 063

KHOV0568

John Halio		
SENDER:  Complete items 1 and/or 2 for additional services.  Complete items 3, 4a, and 4b.  Print your name, and address on the reverse of this form so that w	e can return this	I also wish to receive the following services (for an extra fee):
Print your name and address on the reverse of this form so that we card to you.  Attach this form to the front of the mailpiece, or on the back if space permit.  Write "Return Receipt Requested" on the mailpiece below the article was delivered at a The Behrin Receipt will show to whom the article was delivered at		1. Addressee's Address
<ul> <li>Write "Return Receipt Requested" on the mailpiece below the article.</li> <li>The Return Receipt will show to whom the article was delivered and delivered.</li> </ul>	cle number. nd the date	2.  Restricted Delivery  Consult postmaster for fee.
3. Article Addressed to:	4a. Article N	
alisin filloy, Township Masage	4b. Service	
Lower Mordand Thursdays 640 fed Live Load Huntingdon Valley Pa 18006	☐ Register	
640 fed Kin Joan la 1806	☐ Express ☐ Return Re	Mail Insured ccept for Merchandise COD
LAWIN MARILAND TOWNSHIP Manage LAWIN MARILAND TOWNSHIPS  640 Flet Line Load  Huntingdon Valley Pa 1806  5. Received By: (Print Name)  6. Signature: (Addressee or Agent)	7. Date of D	Pelivery 9/27/07
5. Received By: (Print Name)	8. Addresse and fee is	ee's Address (Only if requested s paid)
3.77		
X VIII CONTAINS		
PS Form 3811, December 1994 10	02595-98-B-0229	Domestic Return Receip
	02595-98-B-0229	Domestic Return Receip
PS Form 3811, December 4994	02595-98-B-0229	
PS Form 3811, December 4994  Who Holo SENDER:  © Complete items 1 and/or 2 for additional services.  © Complete items 3, 4a, and 4b.		I also wish to receive the following services (for an extra fee):
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PS Form 3811, December 4994  SENDER: Complete items 1 and/or 2 for additional services. Complete items 3, 4a, and 4b. Print your name and address on the reverse of this form so that we card to you. Attach this form to the front of the mailpiece, or on the back if space permit. Write "Return Receipt Requested" on the mailpiece below the artice. The Return Receipt will show to whom the article was delivered and delivered.  3. Article Addressed to:  M. Faburt Graff M. C. Chuy Operatory Officer  Normatoria, Jan 19444  5. Received By: MONTECOMERY COUNTY COURT HOUSE	e can return this te does not tele number. d the date  4a. Article N 7019  4b. Service Registere Registere Return Rec 7. Date of De	I also wish to receive the following services (for an extra fee):  1.  Addressee's Address 2.  Restricted Delivery Consult postmaster for fee.  Iumber 3 220 0001 6774 846.  Type ed
PS Form 3811, December 1994  SENDER:  © Complete items 1 and/or 2 for additional services.  © Complete items 3, 4a, and 4b.  © Print your name and address on the reverse of this form so that we card to you.  Attach this form to the front of the mailpiece, or on the back if space permit.  Write "Return Receipt Requested" on the mailpiece below the artice.  The Return Receipt will show to whom the article was delivered and delivered.  3. Article Addressed to:  M. Phurt Mast M. C. Chuy Dhusting Officer  I. O. Boy-311  Novuetour, PA 19464	e can return this te does not the number. d the date  4a. Article N 7019  4b. Service Registers Return Rec 7. Date of Do	I also wish to receive the following services (for an extra fee):  1.  Addressee's Address 2.  Restricted Delivery Consult postmaster for fee.  Iumber 3 220 0001 6774 846.  Type ed

Consulting Engineers S. Buckingham Professional Building 6tt. 202 & 263 Buckingham, PA 18912) n of Quakerlown 5th Street P.O. Box 904 Suite 300 DATE 3-20-01 Quakertown, PA 18951 ylestown, PA 18901 (215) 538-7880 (215) 345-9400 MIKE SHANNON PINE ROAD DEVELOPMENT MONTGOMERY COUNTY CONSERVATION TRISTEICT LOWER MORELAND TOWNSHIP 143 LEVEL ROAD MONTGOMERY COUNTY COLLEGEVILLE, PA. 19476-3313 WE ARE SENDING YOU the following items: ☐ Attached □ Under separate cover via \_\_\_ ☐ Shop drawings □ Prints □ Plans □ Samples □ Specifications □ Copy of letter ☐ Change order \_\_\_\_\_ DESCRIPTION COPIES DATE NO. PRELIMINARY PLANS FOR PINE ROAD SITE, LAST REVISED 2-22-01 (SHEETS 1,24,25,26,27,28+29 OF 52); STORMWATER REPORT FOR PINE ROAD LAST REVISED Z-ZZ-OI; EROSION + SEDIMENTATION CONTROL NARRATIVE AND COMPUTATIONS FOR PINE ROAD SITE, LAST REVISED FEBRUARY 22 ZOOI EROSION + CEDIMENTATION CONTROL APPLICATION THESE ARE TRANSMITTED as checked below: ☐ For approval Approved as submitted ☐ Resubmit \_\_\_\_\_ copies for approval □ Approved as noted □ Submit \_\_\_\_\_ copies for distribution ☐ For your use □ Return \_\_\_\_\_ corrected prints ☐ As requested □ Returned for corrections K For review and comment ☐ FOR BIDS DUE \_ PRINTS RETURNED AFTER LOAN TO US REMARKS\_ DENNIS LAROSA - HOUNANIAN PENDSYLVANIA INC. COPY TO ELIZABETH HURTUBKE-HUNNANIAN PENNA., INC. KHOV0570 ALISON RULDOLF - LOWER MORELAND TWP.

lf enclosures are not as noted, kindly notify புத் at once.

**EHV-065** 

# Montgomery County Conservation Distriction 1015 Bridge Road, Suite B Collegeville, Pa. 19426 610-489-4506

	Entry #
	NPDES #
DATE:Feb.222001_	:
PROJECT NAME: Pine Road Site	MUNICIPALITY: Lower Moreland Township
PROJECT SITE LOCATION: Pine Road	TOTAL PROJECT ACRES: 49.7 acres
	FOF DISTURBED ACRES: 47.2 acres
APPLICANT: Hovnanian Pennsylvania, Inc.	ATTENTION: Jon Tresslar, P.F.
ADDRESS: 301 Oxford Valley Road, Suite 15	03 CONSULTANT: Boucher & James, Inc.
CITY: Yardley STATE: PA	ADDRESS: P.O. Box 904
ZIP CODE: 19067 PHONE: 015)493-4230	CITY: Doylestown, STATE: PA
	ZIP CODE: 18901 PHONE: 0151 345-9400
EROSION AND SEDIMENT	CONTROL INFORMATION  Trikipal: Other: NUMBER OF LOTS: _100 _ Dwelling
	Trib. to Huntingdon Valley Creek: 300ft.
HAVE YOU INCLUDED THE FOLLOWING?  Ortect fees  Only lete Set of Drawings  Stornwater Calculations — pre & post  Will wetlands be impacted?  Yes ( ) No (N/)A	DISTRICT REVIEW FEE (see back)  If Residential: # Units 100 S Previously Submitted  OTHER: # Acres S (acresse is rounded to the next full acre)
The Conservation District will not accept rolled plans They must be folded.	DISTRICT E & S REVIEW FEE ATTACHED: S
	E ELIMINATION SYSTEM (NPDES) Permits
A GENERAL PERMIT is required if the activity will disturb 5 acres or r	nore over the life of the project
An INDIVIDUAL PERMIT is required if:  the activity will disturb 5 acres or more over the life of the project a  the activity will discharge toxins  the activity will violate Water Quality Regulations.	and the project is located in the UNAMI WATERSHED.  \$500.00
•	NPDES Permit fee attached S
The undersigned agrees to comply with all requirements of TITEE 25, CHAPTE forth by the Perusylvania Department of Environmental Protection's EROSION April 1990, and further agrees to obtain all necessary permits in connection with	AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, ŁIKK
	(12 tient's stature)

APPLICATIONS WILL NOT BE ACCEPTED UNLESS IT IS FILLED OUT IN ITS ENTIRETY AND SIGNED BY THE APPLICANT

"Applications are date stamped upon receipt. Within thirty days from the date of an administratively complete application, the district technical eview of the Erosion and Sediment control plan will be conducted. If revisions are necessary, revised plans are also date stamped upon receipt and reviewed in sequence with other applications.

KHOV0571

For Conservation District Use Only

### PINE ROAD SITE

### EROSION AND SEDIMENTATION CONTROL NARRATIVE & COMPUTATIONS PROJECT NO. 99-284

### LOWER MORELAND TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA

SEPTEMBER 1, 2000 REVISED FEBRUARY 22, 2001

For:

Hovnanian Pennsylvania, Inc. Makefield Executive Quarters 301 Oxford Valley Road, Suite 1503 Yardley, Pennsylvania 19067

Prepared by:



**BOUCHER & JAMES, INC.** 

Consulting Engineers



P.O. Box 904 Doylestown, PA 18901 (215) 345-9400 127 S. Fifth Street, Suite 300 Quakertown, PA 18951 (215) 538-7880

KHOV0572

### **INDEX**

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U.S.G.S. MAPPING	4
SOIL MAPPING & LIMITATIONS INFORMATION	5
CONSTRUCTION SEQUENCE	7
E&S DESIGN WORKSHEETS	9
SUPPLEMENTARY CALCULATIONS	45

#### I. INTRODUCTION

This report documents the overall design of stormwater management for a residential subdivision located off *Pine Road (SR 2050)*, just SW of its intersection with *Tomlinson Road*. The applicant for the project is *Hovnanian Pennsylvania*, *Inc.* 

### II. PROPOSED DEVELOPMENT PLAN

The proposed project consists of the 101 lot residential subdivision of an existing 49.7 acre tract Lower Moreland Township, Pennsylvania, comprised by Tax Block Eight (8), Parcels Four (4) & Seven (7). The site lies along the County's shared border with Philadelphia County.

### III. TOPOGRAPHY

The existing tract is diverse in nature. It is comprised mainly of meadow, woodland, bare earth and over grown pavement in poor condition. The paved portion was formerly used as an airport but has since been abandoned and is in a general state of disrepair. There is also an abandoned railway alignment crossing the northern end of the site. The slopes on the site could be categorized as moderate to severe.

### IV. SOILS

The following soils have been mapped on the site according to the Soil Survey of Montgomery County, Pennsylvania By the U.S.D.A. Soil Conservation Service:

Symbol	Description	Slopes	Soil Type
GnB2	Glenville Silt Loam, moderately eroded	3 to 8 %	'C'
GnC2	Glenville Silt Loam, moderately eroded	8 to 15 %	'С'
На	Hatboro Silt Loam		'n,
MdB	Made land, schist and gneiss materials, strongly sloping	2 to 8%	'C'
MhC2	Manor Channery Silt Loam, moderately eroded	8 to 15 %	'B'

### V. STORMWATER MANAGEMENT CONCEPT

A stormwater collection & conveyance system along with multiple detention basins are proposed to control and attenuate developed site runoff. Per the requirements of the *Lower Moreland Township S.A.L.D.O.*, developed peak stormwater runoff leaving the site will be equal to or less than the pre-developed amount. This is achieved by routing developed site runoff to three (3) proposed detention basins. The detention basins attenuate peak runoff for the 1-100 year storm events. Runoff is collected via a stormwater collection system which is primarily located within the site's interior roadways.

KHOV0574

#### VI. CALCULATIONS

Detention basin design is based on S.C.S. methodology for runoff depth and hydrograph generation. Runoff curve numbers and time of concentration are based on TR-55. Hydrographs are based on the S.C.S. unit hydrograph set forth in TR-20. Hydrograph reservoir routing is based on the storage-indication method. Additionally, all cumulative peak flows calculated were generated by summing constituent hydrographs (not by algebraically summing individual peaks). All of these functions are automated by the use of the Hydraflow TM computer program. Please note: a \* six minute minimum time of concentration (0.1 hr) was assumed for any bypass area depicted on the drainage area boundary plans which does not indicate a flow path (\* per TR-55 guidelines).

Storm sewer design flows were generated using the 'Rational Method.' The 10-year frequency event was used for all inlet collection design. The 100-year frequency event was used for all pipe capacity designs. The safety factor utilized for the 100-year frequency event, 1.2, was applied to the rainfall intensity values so that the drainage area & runoff coefficients assumed for each inlet could be properly interpreted from the StormCAD TM output.

#### VII. STORMWATER RUNOFF ANALYSIS:

The site has five principle design points for developed runoff discharge along its outer perimeter. Two drainage areas: B and C consist of both detained & bypass areas. Three drainage areas: A, D and E are comprised strictly of bypass area.

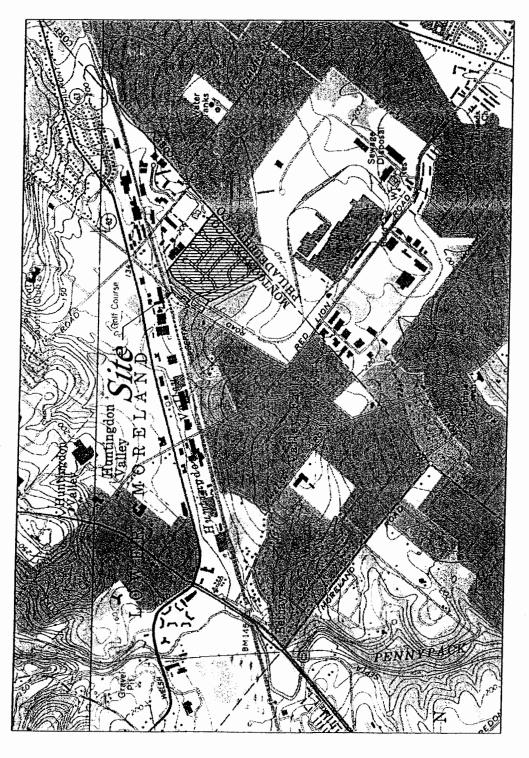
Drainage areas A discharges to an off-site stream which meanders northwest, parallel to the site's southwest boundary, and eventually crosses beneath *Pine Road*. It is split by an old railway crossing embankment into two sub areas, A1 & A2, which we have analyzed together.

Drainage area B discharges to the site's northern tip. There are two proposed basins here.

Drainage areas C, D, and E are all bypass areas with substantially reduced drainage areas proposed to ensure no runoff problems will occur.

Peak runoff rates to all drainage points have been significantly reduced from pre-developed levels.

#### SITE LOCATION MAP

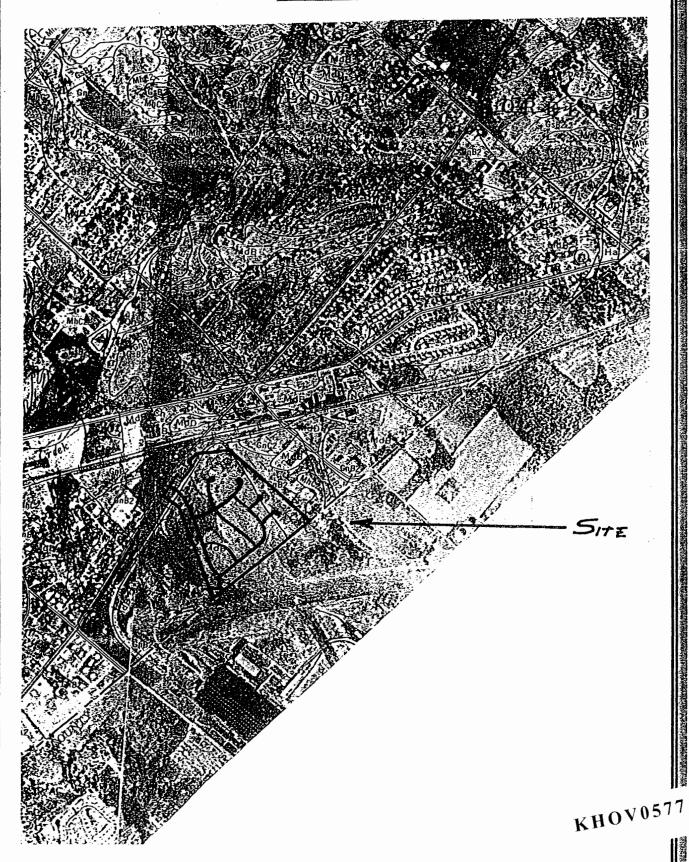


**KHOV0576** 

Hatboro & Frankford Quadrangle / Scale: 1" = 2,000'

4

### SITE SOILS MAP



MONTGOMERY COUNTY SOILS / SCALE: 1" = 1,320'

5

### SOILS INFORMATION

KEY	SOIL TYPE AND DESCRIPTION	LIMITATIONS FOR BUILDINGS WITH BASEMENTS
GnB2	Glenville Silt Loom, 3 to 8 percent slopes, moderately eroded — Type 'C'	Slight
GnC2	Glenville Silt Loom, 8 to 15 percent slopes, moderately eroded — Type 'C'	Moderate - Slope
На	Hatboro Silt Loam — Type 'D'	Severe — Flooding, High Water Table
Mdb	Made Land, schist and gneiss materials, strongly sloping - Type 'C'	Slight — Variable depth to Bedrock
MhC2	Manor Channery Silt Loom, 8—15% slopes, moderately eroded — Type 'B'	Moderate - Slope

KEY	LIMITATIONS FOR LAWNS & LANDSCAPING	SUITABILITY FOR WINTER GRADING
GnB2	Slight	Fair
GnC2	Moderate — Slope	Foir
Ha	Severe — Wetness, Flooding	Poor
Mdb	Slight	Fair
MhC2	Moderate — Shallow to Bedrock, Droughty	Foir

GENERAL RESOLUTIONS FOR SOIL LIMITATIONS				
SEASONAL HIGH WATER TABLE	BASEMENT UNDERDRAINS MAY BE REQUIRED			
SEVERE SLOPE	ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED			
SHALLOW DEPTH TO BEDROCK	BLASTING MAY BE REQUIRED			
UNSUITABLE FOR WINTER GRADING	EARTH MOVING ACTIVITIES MAY NEED TO BE SUSPENDED DURING FREEZING COLD WEATHER			

#### CONSTRUCTION SEQUENCE:

- 1. INSTALL STONE TIRE CLEANING AREA AT ROAD 'A' ENTRANCE.
- 2. INSTALL SILT FENCE AND/OR TREE PROTECTION FENCING FOR SEDIMENT BASINS ONE (1), TWO(2), THREE (3) & FOUR (4) AND SEDIMENT TRAP ONE (1).
- 3. CLEAR AND GRUB TREES NECESSARY FOR CONSTRUCTION OF SEDIMENT BASINS ONE (1), TWO(2), THREE (3) & FOUR (4) AND SEDIMENT TRAP ONE (1).
- 4. CONSTRUCT & STABILIZE SEDIMENT BASINS ONE (1), TWO (2), THREE (3) & FOUR (4) AND SEDIMENT TRAP ONE(1). CLEARING AND GRUBBING AND ROUGH GRADING OF ROADWAYS AND LOTS MAY COMMENCE WITHIN THE TRIBUTARY AREA OF A TRAP OR BASIN AFTER SUCH TRAP OR BASIN IS STABILIZED.
- 5. CLEAR AND GRUB TREES NECESSARY FOR CONSTRUCTION OF REMAINING E&S CONTROLS.
- 6. CONSTRUCT & STABILIZE STONE FILTER BERMS AND PERMANENT SWALES ONE (1) & TWO (2).
- 7. INSTALL SILT FENCE AND/OR TREE PROTECTION FENCING FOR REMAINDER OF SITE.
- 8. CLEAR AND GRUB REMAINDER OF SITE.
- 9. ROUGH GRADE ROADS AND BUILDING LOTS. STABILIZE ANY SEVERE CUT & FILL EMBANKMENT AREAS IMMEDIATELY UPON COMPLETION. CLEARING AND GRUBBING AND ROUGH GRADING OF ROADWAYS AND LOTS MAY COMMENCE WITHIN THE TRIBUTARY AREA OF A TRAP OR BASIN AFTER SUCH TRAP OR BASIN IS STABILIZED.
- 10. COMMENCE CONSTRUCTION OF BUILDINGS.
- 11. INSTALL UTILITIES. NOTE: STORM INLETS ARE TO BE PROTECTED IMMEDIATELY AFTER INSTALLATION ONLY IF THEY ARE NOT DISCHARGING TO A SEDIMENT BASIN OR TRAP.
- 12. INSTALL CURBING & CRUSHED STONE BASE COURSE.
- 13. INSTALL BITUMINOUS BASE COURSE AND COMBINATION INLET PROTECTION & BERMS.
- 14. FINISH GRADE LOTS. REMOVE SEDIMENT BASIN FOUR (4) AND SEDIMENT TRAP ONE (1) AS NECESSARY TO CONSTRUCT ADJACENT LOTS, ONLY AFTER THEIR TRIBUTARY AREAS ARE STABILIZED AND THEIR DRAINAGE CAN BE DIVERTED TO SEDIMENT BASINS ONE (1) & TWO(2) VIA INSTALLED & ALREADY FUNCTIONING STORMPIPE.
- 15. INSTALL ALL LANDSCAPING & LIGHTING.
- 16. PROVIDE PERMANENT SOIL STABILIZATION OF ALL REMAINING DISTURBED AREAS.
- 17. UPON COMPLETE STABILIZATION OF SITE (W/70% PERMANENT GROUND COVER ESTABLISHED) AND APPROVAL FROM THE MONTGOMERY CONSERVATION DISTRICT, REMOVE REMAINING TEMPORARY EROSION & SEDIMENTATION CONTROLS. SEDIMENT BASINS ONE(1), TWO(2) & THREE (3) CAN BE CONVERTED INTO PERMANENT DETENTION BASINS WHEN 70% OF THEIR INDIVIDUAL PERMANENT GROUND COVER HAS BEEN ESTABLISHED. PROVIDE PERMANENT SOIL STABILIZATION FOR ALL AFFECTED AREAS. SEED & STABILIZE ALL FACILITIES BEING CONVERTED TO PERMANENT DETENTION BASINS IMMEDIATELY.
- 18. FINISH PAVE ROADWAY.

BOUCHER & JAMES, INC. 127 South Fifth Street Suite 300 QUAKERTOWN, PENNSYLVANIA 18951 (215) 538-7880

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### STANDARD WORKSHEET COVER SHEET

A.	DEVE	LOPMENT NAME:	PINE ROAD SITE DATE: 09/01/00
	1.	LOCATION:	LOWER MORELAND TOWNSHIP, MONTGOMERY (Municipality) (County)
	2.	FACILITY OWNER: [ 102.4(a) ]	HOVNANIAN PENNSYLVANIA, INC. (Name)
			MAKEFIELD EXECUTIVE QUARTERS (Address)
			301 OXFORD VALLEY ROAD, SUITE 1503
			YARDLEY, PA 19067 (Zip)
	Tele	phone #: (215) 493 - 45	230
3.	OPE		E FOR CONSTRUCTION AND MAINTENANCE OF EARTHMOVING ION AND SEDIMENT POLLUTION CONTROLS: Note: List all responsible parties in the party.
	[ ]	02.4(a)]	Please See Above (Name)
			(Address)
		-	(Zip)
	Telep	phone # : ( )	
	4.	EROSION AND SEDI	MENTATION CONTROL PLAN PREPARER
	[ 102	.4(a) ]	Leon D. McGuire Jr., P.E. / Boucher & James (Name)
		-	P.O. Box 904, Doylestown, PA (Address)
		-	18901 (Zip)
	Telep	hone # : (215 ) 345-9400	)

#### EROSION AND SEDIMENTATION CONTROL PLAN

# STANDARD WORKSHEET # 2 RECORD OF TRAINING AND EXPERIENCE IN EROSION AND SEDIMENTATION CONTROL METHODS AND TECHNIQUES

NAME OF PLAN PREPARER:

LEON D. MCGUIRE JR., P.E.

FORMAL EDUCATION:

B. S. CIVIL ENGINEERING, P.S.U.

Name of College or Technical Institute:

PENN STATE UNIVERSITY

Curriculum or program:

**CIVIL ENGINEERING** 

Dates of Attendance: From:

08-1985 TO 12-1990

Degree received:

**B.S. CIVIL ENGINEERING** 

OTHER TRAINING:

Name of Training:

8 YEARS OF EXPERIENCE IN LAND DEVELOPMENT

Presented by:

Date:

EMPLOYMENT HISTORY:

**Current Employer:** 

**BOUCHER & JAMES, INC.** 

Telephone:

(215) 345-9400

**Eermer Employer:** 

GILMORE & ASSOCIATES, INC.

phone:

(215) 345-4330

#### RECENT EROSION AND SEDIMENTATION CONTROL PLANS PREPARED:

Name of Project:	Doylestown Hospital	Doylestown Y.M.C.A.	Longleaf Estates II
County:	Bucks	Bucks	Bucks
Municipality:	Doylestown Township	Doylestown Township	Hilltown Township
Permit Number: (If Applicable)	N/A	N/A	N/A
Approving Agency:	B.C.D.	B.C.D.	B.C.D.

#### **EROSION AND SEDIMENTATION CONTROL PLAN**

PAGE	OF	

## STANDARD WORKSHEET # 8 TEMPORARY AND PERMANENT SEEDING SPECIFICATIONS

PROJECT NAM	ME: TOMLINSON Road (	AKA PINE ROAD	SITE)
LOCATIO	N: Lower Moreland Tu	PIPA	:
PREPARED B	Y: LDMZ, P.E.	DATE:	SHEET # OF
CHECKED B		DATE:	
			D 0
	NS: The Department recomme		
	andard to use for selection of s		
liming and fert	ilizing, time of seeding, and se	eding methods.	Specifications for these
	be obtained from Penn DOT's		
	applicable county conservation		
	must be used to provide all spe		
amendments. 7	The following specification will	be used for this	project:
(TEMPODADY)	CDECIEC*.	N 1 to	·
(TEMPORARY)		Arriel P	
	% PURE LIVE SEED:	98	
	APPLICATION RATE:	48.4	LB./ACRE
	FERTILIZER TYPE:	10-20-2	
:	FERTILIZER APPL. RATE:	<u>678</u> 1.9	LB./ACRE
	LIMING RATE:		T./ACRE
	MULCH TYPE:	Hay or 54	
•	MULCHING RATE:	3.0	T./ACRE
(DEDMANENT)	SPECIES*:		0% 10% ULAWN   WEEZIN H FESCUE   BLKKIN67255
(PERMANENT)	% PURE LIVE SEED:		B GB : %
	APPLICATION RATE:	101. L	
	FERTILIZER TYPE:	In-20-2	
•	FERTILIZER APPL. RATE:	678	LB./ACRE
,	LIMING RATE:	1.9	T./ACRE
	MULCH TYPE:	Heur or St	
	MULCHING RATE:	3.0	T./ACRE
	ANCHOR MATERIAL:	Alu	
	ANCHORING METHOD:	alu	
RATE OF	ANCHOR MATERIAL APPL:	NA	
	SEEDING SEASON DATES:	3/15-6/1	8/1-10/15
(PERMANENT -			. •
(≥ 3:1)	% PURE LIVE SEED:	Ala	<u> </u>
<u> </u>	APPLICATION RATE:		LB./ACRE
	FERTILIZER TYPE:		(X-X-X)
	FERTILIZER APPL. RATE: _		LB./ACRE
	LIMING RATE:		T./ACRE
	MULCH TYPE:		
	MULCHING RATE:		1./ACRE
	ANCHOR MATERIAL:		
	ANCHORING METHOD: _		
RATE OF A	ANCHOR MATERIAL APPL:		
•	SEEDING SEASON DATES:		

\* If more than one species is used, indicate application rate for each species. NOTE: Show information from this sheet on plan drawings.

#### **Erosion and Sedimentation Control Plan**

### Standard Worksheet #9 Sediment Trap Data

**Project Name:** Tomlinson Road (99-284) **Location:** Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

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KHOV0584

Date:

Date:

02/21

Project Name: Tomlinson Road (99-284)

Date:

Location: Lower Moreland Township

Prepared By: LDM2, P.E. Checked By: N/A

Purpose: Design Sediment Trap

#1

02/21

02/21

Methodology:

Use PA.D.E.P. Sediment & Erosion Control Manual & Erosion Control

Worksheet

#### I. Design Parameters

A. Disturbed Area: 5.00 AC
Undisturbed Area: 0.00 AC
Total Area: 5.00 AC

B. Sediment Storage Volume: 10000 CF

C. Clean-out Volume: 3500 CF

D. Total Storage Volume Requir 13500 CF

#### Stage Storage:

	Contour	Area	Ave. Area	Incr. Vol	Total
	218	0		0	0
			597.5		
	220	1195		1195	1195
			2860		
	222	4525		5720	6915
			6882.5		
	224	9240		13765	20680
			13025		
Berm =	226	16810		26050	46730

Clean-out Volume Elevation: 220.8 FT Crest of Principal Spillway: 223.0 FT

Dewatering:

Use one (1) - 1" dia. perf. each @

Elev. 220.8 & 221.8

Barrel:

18 IN

Required Flow:

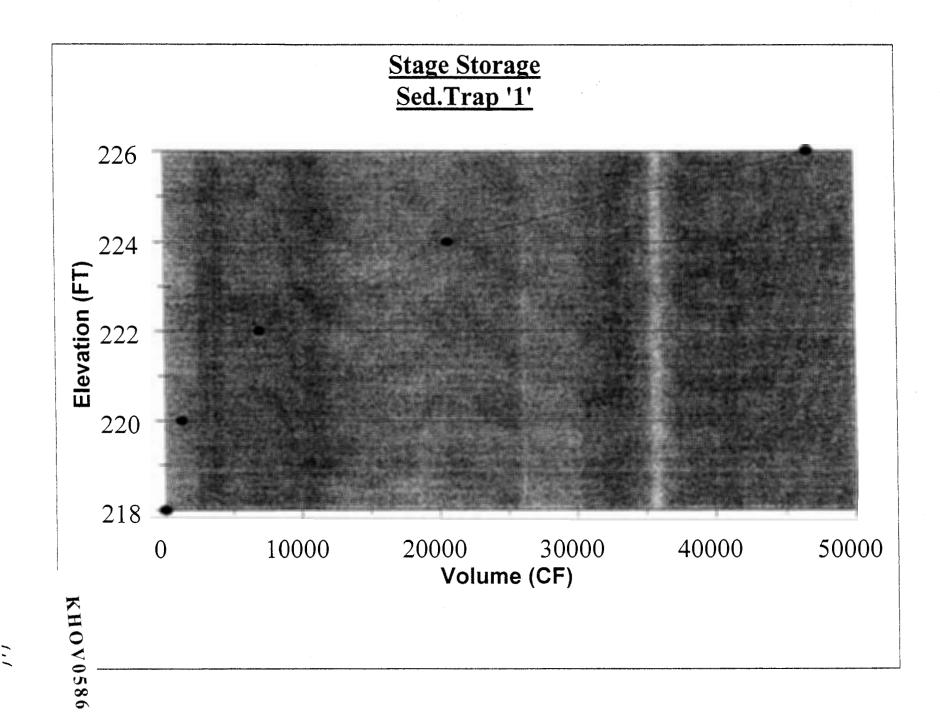
7.5 CFS

Required Head:

0.70 FT

Min. Berm Elev.:

224.66 FT



#### **Erosion and Sedimentation Control Plan**

### Standard Worksheet #13 Sediment Basin Capacity Requirements

Project Name: Tomlinson Road (99-284)

Date:

03/13

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Sediment Basin Number	#1	#2	#3	#4
			πυ	
(A) Maximum Total Drainage Area (AC)	28.5	7.0	6.2	5.8
(a) Maximum Total Disturbed Area (AC)	28.5	6.5	6.0	5.8
(Sv) Req'd Settling Volume (5000 x A) (CF)	142,250	34,850	31,050	29,000
(Sd) Req'd Sediment Storage Volume (1000 x a)	28,450	6,470	6,000	5,800
(St) Total Req'd Storage Volume (Sv + Sd) (CF)	170,700	41,320	37,050	34,800
Total Storage Volume Provided (CF) (T.B.)	186,699	29,486	38,435	33,620
Required Discharge Capacity (2 x A) (CFS)	56.9	13.9	12.4	11.6
Principal Spillway Capacity (@ Elev '5') (CFS)	23.5	13.9	8.0	8.0
Emergency Spillway Capacity (@ Elev '5') (CFS)	37.3	5.7	5.7	5.7
Emergency Spillway Protective Lining	Miramat	Miramat	Miramat	Miramat

Project Name: Tomlinson Road (99-284)

Date: 03/13

Location: Lower Moreland Township

Prepared By: LDM2, P.E. Checked By: N/A

Purpose: Design Sediment Basin for Basin:

#1

Methodology: Use PA.D.E.P. Sediment & Erosion Control Manual & Erosion Control

Worksheet

#### I. Design Parameters

A. Disturbed Area:	28.45 AC
Undisturbed Area:	0.00 AC
Total Area:	28.45 AC
B. Sediment Storage Volume:	28450 CF
C. Settling Volume:	142250 CF
D. Total Storage Volume Req'd:	170700 CF

#### **Stage Storage:**

Ele	evation	Area	Avg. Area			l. Cum. Vol.
	(ft)	(sf)	(sf)	(cf)	(cf)	(ac-ft)
]	178.0	18175	19347.5	0	0	0.000
1	179.0	20520	21692.5	19347.5	19348	0.444
1	80.0	22865		21692.5	41040	0.942
1	81.0	25327.5	24096.25	24096.3	65136	1.495
1	82.0	27790	26558.75	26558.8	91695	2.105
1	83.0	30362.5	29076.25	29076.3	120771	2.773
1	84.0	32935	31648.75	31648.8	152420	3.499
1	85.0	35622.5	34278.75	34278.8	186699	4.286
1	86.0	38310	36966.25	36966.3	223665	5.135
1	87.0	41110	39710	39710	263375	6.046
1	88.0	43910	42510	42510	305885	7.022
Sett	ling Vo	olume Ele lume Eleva llway Cres		179.00 185.00 185.50	FT	KHOVA

17

II. Size Principal Riser, Spillway, Barrel:

#1

03/13

Barrel:

30 IN

56.9 CFS

Required Discharge:

Use CMP Riser:

42 IN

Required Head:

1.53 FT

Discharge Invert:

179.00 FT

Discharge Elevation:

180.25 FT

#### Compute H.W.:

Parameters:

Flow: 56.9 CFS

Riser Diameter:

42 IN

Riser Crest Elevation:

185.0 FT

Emergency Spillway:

185.5 FT

Let H= 0.75 FT

Spillway: H= 0.25 FT

Flow= 22.50 CFS

Riser: H= 0.75 FT

Flow= 19.46 CFS

Total: Flow= 41.95 CFS < 56.9 CFS

Let H= 0.85 FT

Spillway: H= 0.35 FT

Flow= 37.27 CFS

Riser: H= 0.85 FT

Flow= 23.47 CFS

Total: Flow= 60.74 CFS > 56.9 CFS

H.W.: 185.9 FT T.O.B.: 187.9 FT

#### **Erosion and Sedimentation Control Plan**

#### Standard Worksheet #14 Sediment Basin Dimensions and Elevations

Project Name: Tomlinson Road (99-284) Location: Lower Moreland Township

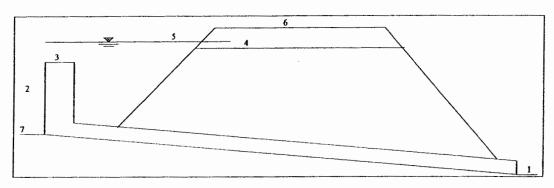
Prepared By: LDM2, P.E. ,

Checked By:

Date:

03/13

Date:



Sediment Basin Number	#1	#2	#3	#4
1. Discharge Pipe Elevation (FT)	180.25	181.25	216.50	203.75
2. Sediment Storage Elevation (@ Sd) (FT)	179.0	182.5	218.8	206.5
3. Elevation at Top of Settling Volume (St) (FT)	185.0	188.5	221.9	209.1
4. Emergency Spillway Elevation (FT)	185.5	189.0	222.4	209.6
5. 2 CFS/AC Flow Elevation (FT)	185.9	189.1	222.5	209.7
6. Top of Berm (T.O.B.) Elevation (FT)	187.9	191.1	224.5	211.7
7. Bottom Elevation (During E&S Stage) (FT)	180.3	181.3	216.55	203.8
Average Bottom Width (FT)	400.0	150.0	200.0	150.0
Average Bottom Length (FT)	75.0	50.0	50.0	50.0
Embankment Top Width (FT)	10	10	10	10
Riser Diameter (IN)	42	42	24	24
Barrel Diameter (IN)	30	30	18	18
Barrel Length (FT)	10.0	45.0	10.0	45.0
Emergency Spillway Width (FT)	85.0	10.0	15.0	10.0
Emergency Spillway Side Slopes (H:V)	3FT:1FT	2FT:1FT	3FT:1FT	2FT:1FT

#1

### Standard Worksheet #17 Sediment Basin Dewatering Discharge Capacity

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Perforation Discharge (Top of Riser to Sediment Clean out Elevation)

Water	Riser							
Surface			Orifice Row	Elevation			Discharge	
Elevation	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6	(CFS)	
179.0	0						0	
179.5	0.173	0					0.173	
180.0	0.244	0.173	0				0.417	
180.5	0.299	0.244	0.173	0			0.716	
181.0	0.345	0.299	0.244	0.173	0		1.061	
185.0	2.008	0.345	0.299	0.244	0.173	0	3.069	
185.9	2.232	2.008	0.345	0.299	0.244	0.173	5.301	
<b></b>						~		
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L								

Crest H.W.

> Diameter of Holes: Number of Holes Per Row:

1 IN

9

#### Standard Worksheet #16 Sediment Basin Discharge Capacity

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

#### Principal Spillway Discharge Capacity

							Principa
Water	Riser				Barrel		l Spillway
Surface	Ori	Orifice Weir		Pipe l	Pipe Flow		
Elevation	Head	Flow	Head	Flow	Head	Flow	Capacity
179.0	0	0					0
179.5	0.5	0.173					0.173
180.0	1.0	0.417					0.417
180.5	1.5	0.716					0.716
181.0	2.0	1.061					1.061
185.0	6.0	3.069	0	0	4.8	52.78	3.069
185.9	6.8	5.301	0.8	23.47	5.6	57.31	28.774

Crest H.W.

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03/13

### Standard Worksheet #18 Sediment Basin Dewatering Time Data

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Water		Incr.				· · · · · · · · · · · · · · · · · · ·
Surface	Storage	Storage		Average		Accum.
Elevation			Discharge	_	Time	Time
Elevation	Volume	Volume	Discharge	Discharge	Tillic	Time
170.0	10240					0
179.0	19348	10046	0	-	24.0	
179.5	30194	10846	0.173	0.086	34.9	34.9
180.0	41040	10846	0.417	0.295	10.2	45.1
180.5	53088	12048	0.716	0.566	5.9	51.0
181.0	65136	12048	1.061	0.889	3.8	54.8
185.0	186699	121563	3.069	2.065	16.4	71.1
185.9	223665	36966	28.774	15.922	0.6	71.8
1						
l						
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<b> </b>						

Time:

71.8 HRS

=

3.0 Days

OK

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Purpose: Design Sediment Basin for Basin:

Date:

03/13

#2

Methodology: Use PA.D.E.P. Sediment & Erosion Control Manual & Erosion Control

Worksheet

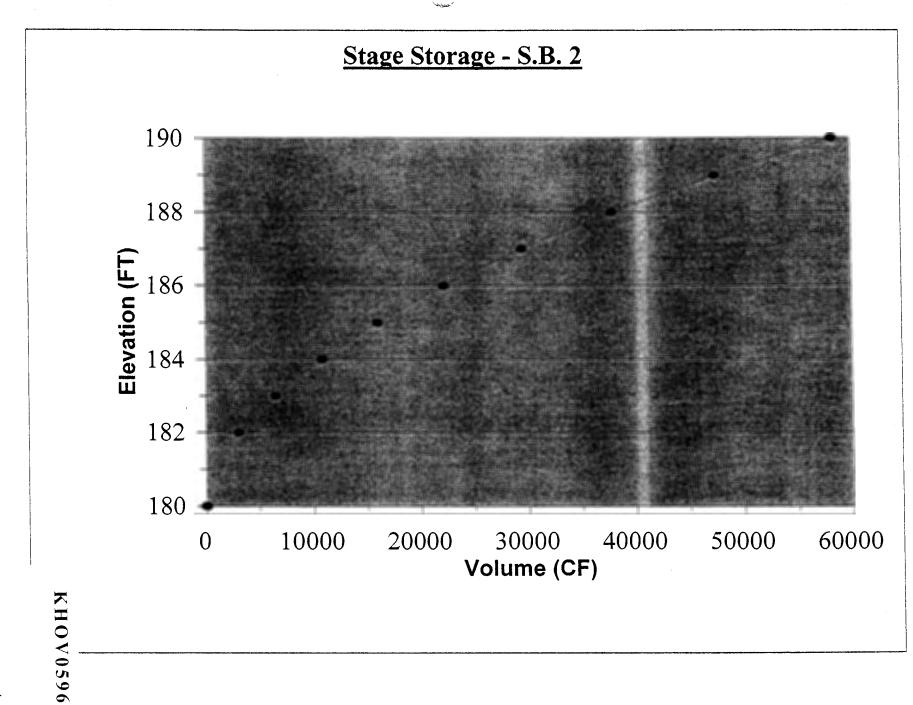
#### I. Design Parameters

Undisturbed Area: Undisturbed Area: Total Area:	0.50 AC 6.97 AC
B. Sediment Storage Volume:	6470 CF
C. Settling Volume:	34850 CF
D. Total Storage Volume Req'd:	41320 CF

#### Stage Storage:

Elevation	Area	Avg. Area	Volume	Cum. V	olCum. Vol.
(ft)	(sf)	(sf)	(cf)	(cf)	(ac-ft)
180.0	0		0	0	0.000
181.0		1527.5		1528	
182.0	3055		3055	3055	0.070
182.5		3467.5		4789	
183.0	3880		3467.5	6523	0.150
183.5		4292.5		8669	
184.0	4705		4292.5	10815	0.248
184.5		5203.75		13417	
185.0	5702.5		5203.75	16019	0.368
185.5		6201.25		19119	
186.0	6700		6201.25	22220	0.510
186.5		7266.25		25853	
187.0	<i>7832.5</i>		7266.25	29486	0.677
187.5		8398.75		33686	
188.0	8965		8398.75	37885	0.870
188.5		9593.75		42682	
189.0	10222.5		9593.75	47479	1.090
189.5		10851.25		52904	
190.0	11480		10851.3	58330	1.339

Sediment Volume Elevation: 182.5 FT
Settling Volume Elevation: 188.5 FT
Min. E. Spillway Crest Elevation 189.0 FT



II. Size Principal Riser, Spillway, Barrel:

Barrel:

30 IN

Required Discharge 13.94 CFS

Use CMP Riser:

42 IN

Required Head:

0.60 FT

Discharge Invert:

180.00 FT

Discharge Elevation

181.25 FT

Compute H.W.:

Parameters:

Flow: 13.94 CFS

Riser Diameter:

42 IN

Riser Crest Elevation:

188.5 FT

**Emergency Spillway:** 

189.0 FT

Let H= 0.50 FT

> Spillway: H=

0 FT

Flow= 0.00 CFS

Riser:

H= 0.5 FT

Flow= 10.59 CFS

Total:

Flow= 10.59 CFS 13.94 CFS

03/13

#2

Let H= 0.60 FT

> Spillway: H=

0.1 FT

Flow= 5.69 CFS

Riser:

H= 0.6 FT

Flow= 13.92 CFS

Total:

Flow=

19.61 CFS

13.94 CFS

H.W.:

189.1 FT

T.O.B.:

191.1 FT

Standard Worksheet #17
Sediment Basin Dewatering Discharge Capacity

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Perforation Discharge (Top of Riser to Sediment Clean out Elevation)

Water			Rise	r			Total	
Surface								
Elevation	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6	Discharge (CFS)	
Biovacion	2011	102	105	10		210 11 0	(3.3)	
182.5	0						0	
183.0	0.038	0					0.038	
183.5	0.054	0.038	0				0.093	
184.0	0.066	0.054	0.038	0			0.159	
184.5	0.077	0.066	0.054	0.038	0		0.236	
188.5	0.446	0.077	0.066	0.054	0.038	0	0.682	
189.1	0.482	0.446	0.077	0.066	0.054	0.038	1.164	
	Diameter (	CII	1					

Crest H.W.

Diameter of Holes:

1 IN

Number of Holes Per Row:

2

03/13

Standard Worksheet #16 Sediment Basin Discharge Capacity

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Principal Spillway Discharge Capacity

117-4-		D:			, ,	1	Principa
Water				Barrel			
Surface		fice		eir	Pipe	Flow	Spillway
Elevation	Head	Flow	Head	Flow	Head	Flow	Capacity
100.5				ļ			<u> </u>
182.5	0	0					0
183.0	0.5	0.038		ļ		ļ	0.038
183.5	1.0	0.093			ļ		0.093
184.0	1.5	0.159			<u> </u>	ļ	0.159
184.5	2.0	0.236					0.236
188.5	6.0	0.682	0	0	7.3	65.21	0.682
189.1	6.6	1.164	0.6	13.92	7.8	67.86	15.085
							1

H.W.

Crest

### Standard Worksheet #18 Sediment Basin Dewatering Time Data

Project Name: Tomlinson Road (99-284)
Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Water		Incr.				
Surface	Storage	Storage		Average		Accum.
Elevation			Discharge	Discharge	Time	Time
182.5	4789	-	0	-	-	0
183.0	6523	1734	0.038	0.019	25.1	25.1
183.5	8669	2146	0.093	0.066	9.1	34.2
184.0	10815	2146	0.159	0.126	4.7	38.9
184.5	13417	2602	0.236	0.198	3.7	42.6
188.5	42682	29265	0.682	0.459	17.7	60.3
189.1	47479	4797	15.085	7.883	0.2	60.5

Time:

60.5 HRS

==

2.5 Days

OK

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Purpose: Design Sediment Basin for Basin:

#3

Date:

08/23

Methodology:

Use PA.D.E.P. Sediment & Erosion Control Manual & Erosion Control

Worksheet

I. Design Parameters

A. Disturbed Area: 6.00 AC
Undisturbed Area: 0.21 AC
Total Area: 6.21 AC

B. Sediment Storage Volume: 6000 CF

C. Settling Volume: 31050 CF

D. Total Storage Volume Req'd: 37050 CF

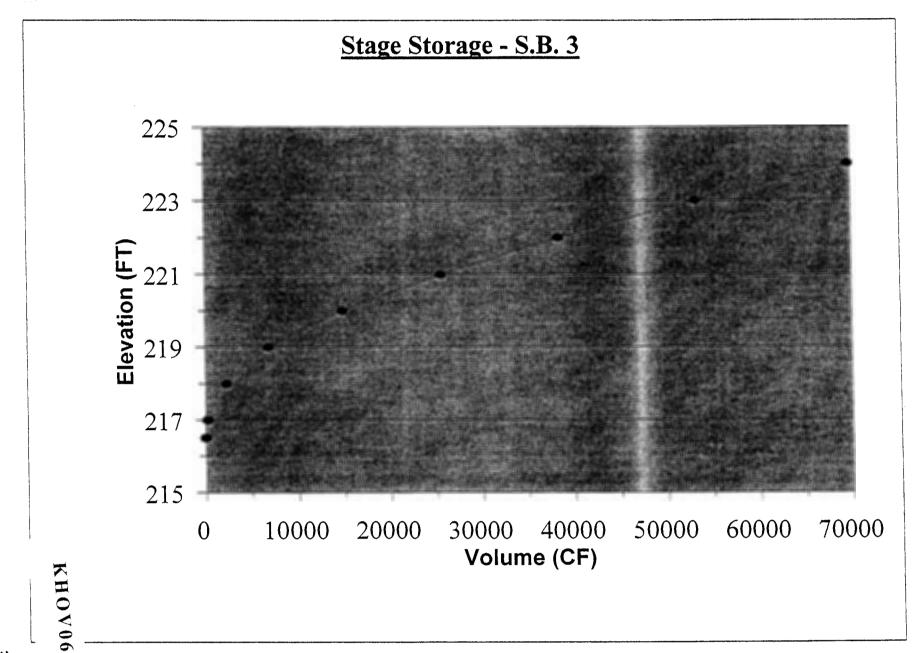
Stage Storage:

Elevation	Area	Avg. Area	Volume	Cum. Vol Cum. Vo	
(ft)	(sf)	(sf)	(cf)	(cf)	(ac-ft)
216.5	<b>0</b>		0	0	0.000
		496.665			
217	993.33		248.333	248.3	0.006
217.5		1986.665		1241.7	
218	2980		1986.67	2235.0	0.051
218.5		4642.5		4556.2	
219	6305		4642.5	6877.5	0.158
219.5		7967.5		10861.2	
220	9630		7967.5	14845.0	0.341
220.5		10712.5		20201.2	
221	11795		10712.5	25557.5	0.587
221.5		12877.5		31996.2	
222	13960		12877.5	38435.0	0.882
222.5		14807.5		45838.7	
223	15655		14807.5	53242.5	1.222
223.5		16502.5		61493.7	
224	17350		16502.5	69745.0	1.601

KHOV0601

Sediment Volume Elevation: 218.75 FT Settling Volume Elevation: 221.90 FT

Min. E. Spillway Crest Elevation: 222.40 FT



II. Size Principal Riser, Spillway, Barrel:

#3

08/23

Barrel:

18 IN

Required Discharge

12.42 CFS

Use CMP Riser:

24 IN

Required Head:

0.81 FT

Discharge Invert:

216.50 FT

Discharge Elevation

217.25 FT

#### Compute H.W.:

Parameters:

Flow:

12.42 CFS

Riser Diameter:

24 IN

Riser Crest Elevation:

221.9 FT

Emergency Spillway:

222.4 FT

Let H=

0.50 FT

Spillway:

H= Flow= 0 FT

0.00 CFS

Riser:

H=

0.5 FT

Flow=

6.05 CFS

Total:

Flow=

6.05 CFS

< 12.42 CFS

Let H=

0.60 FT

Spillway:

H=

0.1 FT

Flow=

5.69 CFS

Riser:

H=

0.6 FT

Flow=

7.95 CFS

Total:

Flow=

13.65 CFS

> 12.42 CFS

H.W.:

222.5 FT

**T.O.B.**:

224.5 FT

Standard Worksheet #17
Sediment Basin Dewatering Discharge Capacity

Project Name: Tomlinson Road (99-284)

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Crest H.W. Perforation Discharge (Top of Riser to Sediment Clean out Elevation)

Water	Riser								
Surface	Orifice Row Elevation								
Elevation	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6	(CFS)		
218.8	0						0		
219.3	0.058	0					0.058		
219.8	0.081	0.058	0				0.139		
220.3	0.100	0.081	0.058	0			0.239		
220.8	0.115	0.100	0.081	0.058	0		0.354		
221.9	0.350	0.115	0.100	0.081	0.058	0	0.703		
222.5	0.431	0.350	0.115	0.100	0.081	0.058	1.134		

Diameter of Holes:

1 IN

Number of Holes Per Row:

3

### Standard Worksheet #16 Sediment Basin Discharge Capacity

Project Name: Tomlinson Road (99-284)
Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Crest H.W.

#### Principal Spillway Discharge Capacity

Water		Ri	ser	Barrel		Principa I	
Surface	Orif	fice	W	eir eir	Pipe Flow		Spillway
Elevation	Head	Flow	Head	Flow	Head	Flow	Capacity
218.8	0	0					0
219.3	0.5	0.058					0.058
219.8	1.0	0.139					0.139
220.3	1.5	0.239					0.239
220.8	2.0	0.354					0.354
221.9	3.2	0.703	0	0	4.7	16.90	0.703
222.5	3.8	1.134	0.6	7.95	5.3	17.95	9.089
			,				

### Standard Worksheet #18 Sediment Basin Dewatering Time Data

**Project Name:** Tomlinson Road (99-284) **Location:** Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Time:

61.6 HRS

				•		
Water		Incr.				
Surface	Storage	Storage		Average		Accum.
Elevation	Volume	Volume	Discharge	Discharge	Time	Time
218.75	5717	-	0	-	-	- 0
219.25	8869	3152	0.058	0.029	30.4	30.4
219.75	12853	3984	0.139	0.098	11.3	41.7
220.25	17523	4670	0.239	0.189	6.9	48.6
220.75	22879	5356	0.354	0.296	5.0	53.6
221.90	37147	14268	0.703	0.529	7.5	61.1
222.50	45839	8692	9.089	4.896	0.5	61.6
					-	

KHOV0606

OK

2.6 Days

Project Name: Tomlinson Road (99-284)

Date: 03/13

Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Purpose: Design Sediment Basin for Basin:

#4

#### Methodology:

Use PA.D.E.P. Sediment & Erosion Control Manual & Erosion Control Worksheet

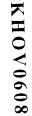
#### I. Design Parameters

A. Disturbed Area:	5.80 AC
Undisturbed Area:	0.00 AC
Total Area:	5.80 AC
B. Sediment Storage Volume:	5800 CF
C. Settling Volume:	29000 CF
D. Total Storage Volume Req'd:	34800 CF

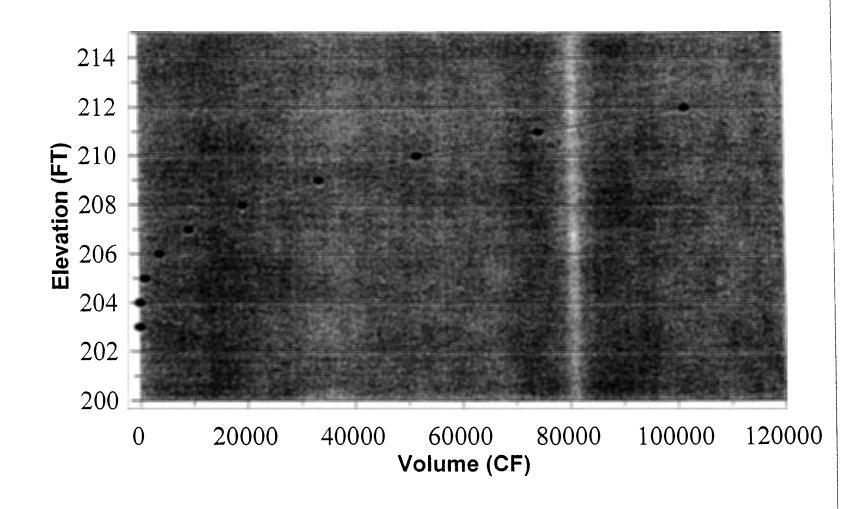
#### Stage Storage:

Elevation	Area	Avg. Area	Volume	Cum. Vol	. Cum. Vol.
(ft)	(sf)	(sf)	(cf)	(cf)	(ac-ft)
203.0	0		0	0	0.000
203.5		107.5		54	
204.0	215		107.5	108	0.002
204.5		1012.75		614	
205.0	1810.5		1012.75	1120	0.026
205.5		2608.25		2424	
206.0	3406		2608.25	3729	0.086
206.5		5611.5		6534	
207.0	7817		5611.5	9340	0.214
207.5		10022.5		14351	
208.0	12228		10022.5	19363	0.445
208.5		14257.25		26491	
209.0	16286.5		14257.3	33620	0.772
209.5		18315.75		42778	
210.0	20345		18315.8	51936	1.192
210.5		22637.5		63254	
211.0	24930		22637.5	74573	1.712
211.5		27222.5		88184	
212.0	29515		27222.5	101796	2.337

Sediment Volume Elevation: 206.5 FT
Settling Volume Elevation: 209.1 FT
Min. E. Spillway Crest Elevation: 209.6 FT



### Stage Storage - S.B. 4



II. Size Principal Riser, Spillway, Barrel:

#4

03/13

Barrel:

18 IN

Required Discharge:

11.6 CFS

Use CMP Riser:

24 IN

Required Head:

0.77 FT

Discharge Invert:

203.00 FT

Discharge Elevation: 203.75 FT

Compute H.W.:

Parameters:

Flow:

11.6 CFS

Riser Diameter:

24 IN

Riser Crest Elevation:

209.1 FT

Emergency Spillway:

209.6 FT

Let H=

0.50 FT

Spillway:

0 FT

0.00 CFS

Riser:

H=

0.5 FT

Flow=

Flow=

6.05 CFS

Total:

Flow=

H=

6.05 CFS

11.6 CFS

Let H=

.)

0.60 FT

Spillway:

0.1 FT

H=Flow=

5,69 CFS

Riser:

H=

0.6 FT

Flow=

7.95 CFS

Total:

Flow=

13.65 CFS

11.6 CFS

H.W.:

209.7 FT

**T.O.B.**:

211.7 FT

<

USE.:

212.0 FT

03/13

Standard Worksheet #17 Sediment Basin Dewatering Discharge Capacity

Project Name: Tomlinson Road (99-284) Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Perforation Discharge (Top of Riser to Sediment Clean out Elevation)

Water	Riser							
Surface	Orifice Row Elevation							
Elevation	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6	(CFS)	
206.5	0						0	
207.0	0.058	0					0.058	
207.5	0.081	0.058	0				0.139	
208.0	0.100	0.081	0.058	0			0.239	
208.5	0.115	0.100	0.081	0.058	0		0.354	
209.1	0.262	0.115	0.100	0.081	0.058	0	0.616	
209.7	0.357	0.262	0.115	0.100	0.081	0.058	0.973	
			-,					
	Diameter of	of Holes	1	IN				

Crest H.W.

Diameter of Holes: 1 IN

Number of Holes Per Row:

#### Standard Worksheet #16 Sediment Basin Discharge Capacity

Project Name: Tomlinson Road (99-284)
Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

Crest H.W.

#### Principal Spillway Discharge Capacity

					,	Principa	
Water		· · · · · · · · · · · · · · · · · · ·			rrel	I  Spillway	
Surface		fice	Weir			Pipe Flow	
Elevation	Head	Flow	Head	Flow	Head	Flow	Capacity
			ļ				
206.5	0	0					0
207.0	0.5	0.058	<u> </u>				0.058
207.5	1.0	0.139					0.139
208.0	1.5	0.239				L	0.239
208.5	2.0	0.354					0.354
209.1	2.6	0.616	0	0	5.3	18.12	0.616
209.7	3.2	0.973	0.6	7.95	5.9	19.11	8.927
	~~~~						

#4

## Standard Worksheet #18 Sediment Basin Dewatering Time Data

Project Name: Tomlinson Road (99-284)
Location: Lower Moreland Township

Prepared By: LDM2, P.E.

Checked By: N/A

	Water		Incr.				
	Surface	Storage	Storage		Average		Accum.
	Elevation	Volume	Volume	Discharge	Discharge	Time	Time
	206.5	6534	-	0	-	-	0
	207.0	9340	2806	0.058	0.029	27.1	27.1
	207.5	14351	5011	0.139	0.098	14.2	41.2
	208.0	19363	5012	0.239	0.189	7.4	48.6
	208.5	26491	7128	0.354	0.296	6.7	55.3
	209.1	29499	3008	0.616	0.485	1.7	57.0
	209.7	44457	14958	8.927	4.772	0.9	57.9
l							
l							
l							
l							
L							
L							
L						'	
L							
L							
L							
L			<u> </u>				

Time:

57.9 HRS

:

2.4 Days

OK

P	A	G	E	O	F	

# STANDARD WORKSHEET # 19 REQUIRED DISCHARGE CAPACITY FOR CHANNELS

PROJECT N	AME:	TOMLINSON (AL		40 SITE)		
LOCAT	'ION:	Lower Moreland	J. Two			
PREPARED	BY:	LDU	' DATE:	8-28-00	_ SHEET #	OF
CHECKED	BY:		DATE:	-		
Note: List ru	inoff f	or each identified (#)	sub-area that	will be used t	o size a cha	nnel.
#	Tem	porary = 1.60 cfs/ac	re X	acres =		cfs
. # _/	Peri	porary = 1.60 cfs/ac nanent = 2.75 cfs/ac	re x 0.90	acres =	2.5	cfs
#	Tem	porary = 1.60 cfs/ac	re x	acres =		cfs
#	Perr	porary = 1.60 cfs/ac nanent = 2.75 cfs/ac	re x <u>0.43</u>	acres =	1.2	cfs
#	Tem	porary = 1.60 cfs/ac	re x	acres =		cfs
# #	Pern	nanent = 2.75 cfs/ac	re x	acres =		cfs
#	Tem	porary = 1.60 cfs/acr	e x	acres =		cfs
#	Pern	porary = 1.60 cfs/acr nanent = 2.75 cfs/acr	e x	acres =		cfs
#	Tem	porary = 1.60 cfs/acr	e x	acres =		cfs
#	Pern	porary = 1.60 cfs/acr nanent = 2.75 cfs/acr	е х	acres =		cfs
#	Tem	porary = 1.60 cfs/acr	e x	acres =		cfs
#	Pern	nament = 2.75 cfs/acr	e x	acres =	·	cfs
#	Temp	oorary = 1.60 cfs/acr	e x	acres =		cfs
#	Perm	anent = 2.75 cfs/acr	e x	acres =		cfs
#	Temp	oorary = 1.60 cfs/acr anent = 2.75 cfs/acr	e x	acres =		cfs
#	Perm	anent = 2.75 cfs/acr	e x	acres =		cfs
#	Temp	orary = 1.60 cfs/acr	e x	acres =		cfs
#	Perm	anent = 2.75 cfs/acr	e x	acres =		cfs
#	Temp	orary = 1.60 cfs/acr	e x	acres =		cfs
#	Perm	anent = 2.75 cfs/acr	e x	acres =		cts
#	Temp	orary = 1.60 cfs/acre	e x	acres =		cfs
#	Perm	anent = 2.75 cfs/acre	e x	acres =		cfs
#	Temp	orary = 1.60 cfs/acre				
#	Perm	anent = 2.75 cfs/acre	e X	acres =		cfs

#### STANDARD WORKSHEET # 22 CHANNEL DESIGN DATA

PROJECT NAME:	TOMINSON ROAD	(AKA PINE ROAD SITE)	
LOCATION:	LOWER MORELAND	Twp, , PA	
PREPARED BY:	LAM	DATE: 8-28-00	
CHECKED BY:		DATE:	
CHECKED DI.		DRIE.	

/	/	2	Z		7
11			->>		
0			->	,	
5	-		->		
2			->		
2.5:1			>		
0,92	1.12	0,58	0.70		
0.15	0.18	0.10	0.12		
2%			->		
70	yes	NO	yes		
0.022	0.03	0.022	0.03		
2.7	2,2	2.1	1.7		
3	6	3	6		•
2,5	2.5	1.2	1.2		٤
11	14		11		
γ			- >		
		1	, (		
2	2	v	2		
	11 3 5 2 2.5:1 0.92 0.15 2% NO 0.022 2.7 3 2.5 11	11	11	3	11

<sup>\*</sup> Slopes may not be averaged

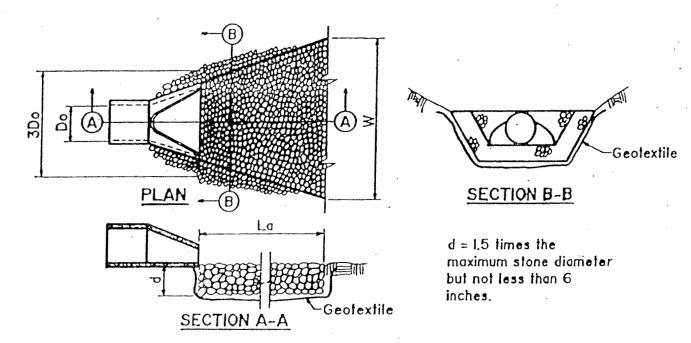
<sup>\*\*</sup> For vegetated channels, provide data for temporary linings and vegetated conditions in separate columns.

## STANDARD WORKSHEET # 24 RIPRAP APRON OUTLET PROTECTION

PROJECT NAME: FINE ROAD

LOCATION: Lower MORECAND TWO

PREPARED BY: LOM DATE: 02-01
CHECKED BY: DATE:



MANNINGS Eq. (Typ.)

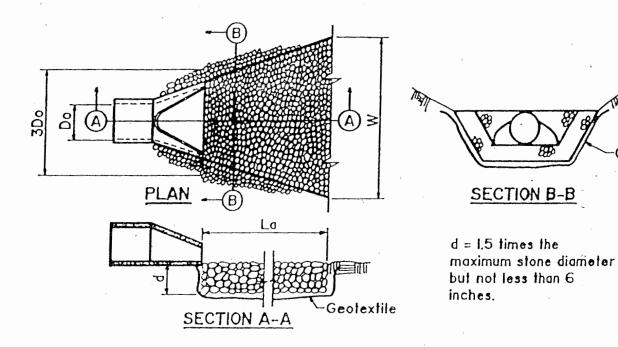
OUTLET NO.	PIPE DIA. Do (in)	TAILWATER CONDITION (Max or Min)	Q (CFS) *25 UR	V• (FPS)	RIPRAP SIZE	La (ft)	W (ft)
43	42	Max.	65	11.8	R6	21	32
71	36	MAX	45	10.8	R5	19	29
97	15	Max	6	9.1	R5	12	16
80	24	MAX	30	12.4	RG	17	24
89	15	MAX	10	12.4	R6	14	18
93	18	MAX	7	5.6	R3	8	13
99	30	MIN	15	8,2	R4	//	19
			# 25 0	IR OR	TRAP C	P.	

The anticipated velocity (V) should not exceed the maximum permissible shown in the Program Manual for the proposed riprap protection.

Geotextile

## STANDARD WORKSHEET # 24 RIPRAP APRON OUTLET PROTECTION

PROJECT NAME:		
LOCATION:	·	
PREPARED BY:	DATE:	
CHECKED BY:	DATE:	



			:	V	MANNI	NGS E	Q. (Ty	p.)
OUTLET NO.	PIPE DIA. Do (in)	TAILWATER CONDITION (Max or Min)	Q (CFS)	V* ·(FPS)	RIPRAP SIZE	La (ft)	(ft)	
(0)	30	MIN.	15	10.5	R5.	13	21	
103	!8	Max	10	7.8	R 4	11	16	
SEDBAS 1	18	Max Max	8	6.2	R3	8	13	
" TRAP /	18	MAX	8	7.9	R4	//	16	
4								

The anticipated velocity (V) should not exceed the maximum permissible shown in the Program Manual for the proposed riprap protection.

Project Description	n
Project File	u:\99284\engr\e&s\swales.fm2
Worksheet	Permanent Swale #1 - Bare Earth Cond.
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Mannings Coefficient	0.022	
Channel Slope	2.00	%
Left Side Slope	3.00000	00 H : V
Right Side Slope	3.00000	00 H : V
Bottom Width	5.00	ft
Discharge	2.50	cfs

-		
_	Results	
	Depth	0.17 ft
	Flow Area	0.92 ft <sup>2</sup>
	Wetted Perimeter	6.06 ft
	Top Width	6.00 ft
	Critical Depth	0.19 ft
	Critical Slope	1.28 %
	Velocity	2.72 ft/s
	Velocity Head	0.11 ft
	Specific Energy	0.28 ft
	Froude Number	1.22
	Flow is supercritical.	

**KHOV0617** 

45

Project Description	on
Project File	u:\99284\engr\e&s\swales.fm2
Worksheet	Permanent Swale #1 - Vegetated Cond.
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Mannings Coefficient	0.030	
Channel Slope	2.00 %	
Left Side Slope	3.000000 H:V	
Right Side Slope	3.000000 H:V	
Bottom Width	5.00 ft	
Discharge	2.50 cfs	

Results	
Depth	0.20 ft
Flow Area	1.12 ft <sup>2</sup>
Wetted Perimeter	6.27 ft
Top Width	6.20 ft
Critical Depth	0.19 ft
Critical Slope	2.39 %
Velocity	2.23 ft/s
Velocity Head	0.08 ft
Specific Energy	0.28 ft
Froude Number	0.92
Flow is subcritical.	

KHOV0618

FlowMaster v5.10 Page 1 of 1

	Project Description	
	Project File	u:\99284\engr\e&s\swales.fm2
	Worksheet	Permanent Swale #2 - Bare Earth Cond.
	Flow Element	Trapezoidal Channel
	Method	Manning's Formula
_	Solve For	Channel Depth

Input Data		
Mannings Coefficient	0.022	
Channel Slope	2.00 %	
Left Side Slope	3.000000 H:V	
Right Side Slope	3.000000 H:V	
Bottom Width	5.00 ft	
Discharge	1.20 cfs	

Results	
Depth	0.11 ft
Flow Area	0.58 ft <sup>2</sup>
Wetted Perimeter	5.69 ft
Top Width	5.65 ft
Critical Depth	0.12 ft
Critical Slope	1.48 %
Velocity	2.08 ft/s
Velocity Head	0.07 ft
Specific Energy	0.18 ft
Froude Number	1.15
Flow is supercritical.	

**KHOV0619** 

4-

Project Description	
Project File	u:\99284\engr\e&s\swales.fm2
Worksheet	Permanent Swale #2 - Vegetated Cond.
Flow Element	Trapezoidal Channel
Method	Manning's Formula
 Solve For	Channel Depth

Input Data	
Mannings Coefficient	0.030
Channel Slope	2.00 %
Left Side Slope	3.000000 H:V
Right Side Slope	3.000000 H: V
Bottom Width	5.00 ft
Discharge	1.20 cfs

Results	
Depth	0.13 ft
Flow Area	0.70 ft <sup>2</sup>
Wetted Perimeter	5.82 ft
Top Width	5.78 ft
Critical Depth	0.12 ft
Critical Slope	2.75 %
Velocity	1.71 ft/s
Velocity Head	0.05 ft
Specific Energy	0.18 ft
Froude Number	0.86
Flow is subcritical.	

RIP-RAP		FILT	ĒR	*********			
SIZE	THICK	SIZE	THICK	MAX V	d50	d50	dMAX
	(IN)		(1N)	(FPS)	(FT)	(IN)	(IN)
NONE	0	NONE	0	0			
NONE	0	NONE	0	3			
R-2	5	FS-1	0	4.5	0.1250	1.50	3.00
R-3	9	FS-2	3	6.5	0.2500	3.00	6.00
R-4	18	FS-2	4	9.0	0.5000	6.00	12.00
R-5	27	FS-2	6	11.5	0.7500	9.00	18.00
R-6	36	FS-3	8	13.0	1.0000	12.00	24.00
R-7	45	FS-3	10	14.5	1.2500	15.00	30.00

- dMAX " IS FROM PA-DEP MANUAL TABLE 5.11 PAGE 5.45
- " THICK " IS 1.5 x " dMAX "
- FILTER STONE " SIZE " AND " THICK " IS FROM TABLE 4.8 PAGE 4.32
- GEOTEXTILE MAY BE USED AS AN ALTERNATIVE TO FILTER STONE
- RIP-RAP IS REQUIRED FOR OUTLET VELOCITIES > 3 FPS
- " MAX V " IS FROM " QUARRIED STONE FOR EROSION AND SEDIMENTATION CONTROL " NATIONAL CRUSHED STONE ASSOC. MAY 1982
- APRON " W " = " L " + 3 x " PIPE DIA "

79040

02/21/01

#### STORM SEWER OUTLET PROTECTION

<b>PROJECT:</b> <b>DESCRIPTION:</b> APRON LENGTH DA	ТА ТА	Ri	omlinson Ro ip-Rap Apro	n Design	*****	****	*********	*******	**********	****		OB # : 99	
FLOW DEPTH													
(IN)	)					\/E	LOCITY	/6-	- \				
		5.5	6	7	8	9	10	(fp:	,				
							10	11	12	13	14	14.5	>14.
0	)	7.8	8.5	9.6	10.7	11.6	12.4	13.1	12.7	44.0	44.0		
12	2	7.8	8.5	9.6	10,7	11.6	12.4	13.1	13.7	14.3	14.9	15.2	N
13	l .	8.6	8.6	9.7	10.8	11.8	12.7	13.1	13.7	14.3	14.9	15.2	N
14		8.8	8.8	9.7	11.0	12.1	13.1		14.3	14.9	15.6	15.9	N
15	;	9.0	9.0	9.7	11.2	12.4	13.1	14.0	14.8	15.5	16.2	16.5	N
16		9.5	9.5	10.5	12.0	13.3		14.4	15.3	16.1	16.9	17.2	N
17		0.0	10.0	11.4	12.8	14.1	14.4	15.4	16,3	17.1	17.9	18.3	N
18		0.4	10.4	12,2	13.7		15.3	16.3	17.2	18.1	18.9	19.3	N
19	•	0.4	12.6	12.6		15.0	16.2	17.2	18.2	19.1	19.9	20.3	N
20		0.4	12.9	12.9	14.1	15.5	16.8	17.9	18.9	19.8	20.7	21.1	N
21	•	0.4	13.3	13.3	14.6	16.0	17.3	18.5	19.6	20.6	21.5	21.9	N
22		0.4	13.6	13.5	15.1	16.6	17.9	19.2	20.3	21.3	22.3	22.7	N
23		0.4	13.8		15.4	16.9	18,4	19.7	20.8	21.9	22.9	23.4	N
24		0.4	14.0	13.8 14.0	15.7	17.3	18.8	20.1	21.4	22.5	23.6	24.1	N
25		0.4	14.0		16.0	17.7	19.2	20.6	21.9	23.1	24.2	24.8	N
26		0.4	14.0	14.0	16.3	18.1	19.7	21.2	22.5	23.8	25.0	25.6	N
27		0.4	14.0	14.0	16.7	18.6	20,3	21.8	23.2	24.5	25.8	26,5	N
28		0.4	14.0	14.0	17.1	19.0	20.8	22.4	23.8	25.2	26,6	27.3	N
29		0.4		14.0	17.3	19.3	21.1	22.8	24.3	25.8	27.3	28.0	N
30	•		14.0	14.0	17.4	19.6	21.5	23.2	24.8	26.4	28.0	28.8	N
32		0.4	14.0	14.0	17.6	19.9	21,9	23.7	25.3	27.0	28.7	29.5	N
34		0.4	14.0	14.0	18.3	20.6	22,8	24.7	26.5	28.3	30.1	31.0	N
		0.4	14.0	14.0	18.9	21.4	23.7	25.7	27.6	29.6	31.5	32.5	N
36		0.4	14.0	14.0	19.6	22.2	24.6	26.7	28.7	30.8	32.9	33.9	 N
38		0.4	14.0	14.0	19.6	22.7	25.2	27.5	29.7	31,9	34.1	35.2	N
40		0.4	14.0	14.0	19.6	23.2	25.9	28.2	30.6	32.9	35.2	36.4	N
42		0.4	14.0	14.0	19.6	23.8	26.5	29.0	31.5	34.0	36.4	37.7	N
44		0.4	14.0	14.0	19.6	23.8	27.1	29.7	32.3	34.9	37.4	38.7	N
46	•	0.4	14.0	14.0	19.6	23.8	27.7	30.4	33.1	35.8	38.5	39.8	N
48		0.4	14.0	14.0	19.6	23.8	28.3	31.1	33.9	36.7	39.5	40.9	N
50		0.4	14.0	14.0	19.6	23.8	28.3	31.7	34.5	37.3	40.0	41.3	N
52		0.4	14.0	14.0	19.6	23.8	28.3	32.2	35.1	37.9	40.5	41.7	N
54		0.4	14.0	14.0	19.6	23.8	28.3	32.8	35.7	38.4	40.5	42.1	N
56		0.4	14.0	14.0	19.6	23.8	28.3	33.4	36.5	39.3	41.9	43.1	
58		0.4	14.0	14.0	19.6	23.8	28.3	34.1	37.2	40.1			N
<u>^</u> 60	) 1	0.4	14.0	14.0	19.6	23.8	28.3	34.7	38.0		42.8	44.1	N
Ξ.						20.0	20,5	34.1	36.0	41.0	43.7	45.0	N

RIPRAP.WB3

PROJECT:		Tomlinson	n Road								JOB#:	99-284	
DESCRIPTION:		Rip-Rap A	pron Design							Prepa	red By:	LDM2, P.E.	
OUTLET	PIPE	PIPE	Q 25 YR		FLOW	VEL -	APRON		RIP-RAP		-	FILTER	
#	DIA	SLOPE	FLOW	" n "	DEPTH	@DEPTH	L	W	THICK	SIZE	d50 .	THICK	SIZE
	(in)	('/')	(cfs)		(in)	(fps)	(ft)	(ft)	(in)		(in)	(in)	
EW-43 (BAS 1)	42	0.0100	65.0	0,012	23.4	11.8	21	32	36	R-6	12	8	FS-3
EW-71 (BAS 1)	36	0.0100	45.0	0.012	20,6	10.8	19	29	27	R-5	9	6	FS-2
EW- 97 (BAS 1)	15	0.0240	6.0	0.012	8.0	9.1	12	16	27	R-5	9	6	FS-2
EW-80 (BAS 2)	24	0.0200	30.0	0,012	17.2	12.4	17	24	36	R-6	12	8	FS-3
EW-89 (BAS 3)	15	0.0400	10.0	0.012	9.4	12.4	14	18	36	R-6	12	8	FS-3
EW-93 (BAS 3)	18	0.0063	7.0	0.012	11/9	5.6	8	13	9	R-3	3	3	FS-2
EW-99 (BAS 1-OS)	30	0.0100	15.0	0.012	12.0	8.2	11	19	18	R-4	6	4	FS-2
EW-101 (BAS 2-OS)	30	0.0200	15.0	0.012	10.0	10.5	13	21	27	R-5	9	6	FS-2
EW-103 (BAS 3-OS)	18	0.0118	10.0	0.012	12.3	7.8	11	16	18	R-4	6	4	FS-2
Temp - Sed Basin #1	18	0.0300	8.0	0.024	12.3	6.2	8	13	9	R-3	3	3	FS-2
Temp - Sed Trap # 1	18	0.0550	8.0	0.024	10.0	7.9	11	16	18	R-4	6	4	FS-2



### OVATIVE ENGINEERING

April 4, 2002

Michael Shannon Montgomery County Conservation District 143 Level Road Collegeville, PA 19426-3313

SUBJECT: MCCD REVIEW LETTER DATED APRIL 3, 2001

PINE ROAD SITE - LOWER MORELAND TOWNSHIP

**PROJECT NO. 99-284** 

Dear Mr. Shannon:

On behalf of our client, Hovnanian Pennsylvania, Inc., we are submitting the following revised plans and documents for the Pine Road Site subdivision located in Lower Moreland Township, Montgomery County, Pennsylvania:

- Sheets 1, 10, 11, 14, 15, 24-27, 28, 29, and 39 of 57 "Pine Road Site," dated 9/1/00, last revised 4/01/02.
- "Pine Road Site, Erosion and Sediment Pollution Control Narrative & Computations," dated 9/01/00, last revised 4/01/02.
- MCCD review letter dated 4/03/01 with notes.

Per our meeting on Monday, April 1, 2002, one copy of each of the above is included for your review and comment. After a verbal confirmation of compliance, I will send two copies of the final plans for your approval. Please contact me at (215) 345-9400 with any questions regarding this submission.

Sincerely,

Joseph A. Mina, P.E.

sella. Min

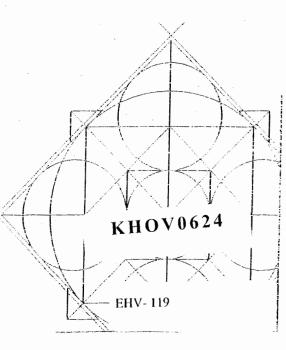
JAM/ecb

Enclosures

cc: Elizabeth Hurtubise Esq. - K. Hovnanian (letter only) Dennis LaRosa - K. Hovnanian (letter only)  Borkinghem Froimsink at Buffing 80 Box 304
 Boylestown, PA 18901
 S45-9400
 Fax 215-754-5087

The Atrium of Quakertown 127 S. Sth Street, Inite 125 Quakertown, PA 18951 115 538-7580 Fax 215 538-3977

www.bjengineerccom





# CONSERVATION DISTRICT

143 Level Road Collegeville, PA 19426-3313 610-489-4506 Fax: 610-489-9795

Acres: 49.7 - 47.2

April 3, 2001

Hovnanian Pennsylvania, Inc. 301 Oxford Valley Road, Suite 1503 Yardley, PA 19067

Re: Pine Road Site

Lower Moreland Twp., Montgomery County

Dear Applicant,

The Montgomery County Conservation District has reviewed the Erosion and Sedimentation Control Plan for the above-referenced project. The plan does not appear to be adequate to control erosion and sedimentation during construction. The following items need to be addressed before the plan can be reviewed as adequate:

- When submitting the revisions for review, please submit two complete sets of the erosion
  and sediment control plan sheets. All Changes made to the sheets should have those
  changes highlighted. A cover sheet which addresses each of the District's concerns from
  the previous review, by number, should also be included.
- 2. Please delineate both the NPDES permit boundary and the Limits of Disturbance on the E&S plan sheets. Include this in the plan Legend.
- The soil use limitations and resolutions are incomplete. Please refer to the Montgomery County Soil Survey Tables 6 and 7 for soil limitations (top soil, embankments, reaction, etc.). Identify the soil and the limitations associated with that type and provide resolutions. Also, the Narrative incorrectly lists GnB2 and GnC2 as Glenville, it should be Glenelg soils.
- heet 27
  4. Please provide a complete mapping symbols legend.
- 5. Please check the Chapter 93 stream classification of the receiving watercourses. This information should be included in the Plan Narrative.
- Please provide details of the proposed channels. Temporary lining calculations should also be included. The channel design data shows that the recommended 12:1 maximum bottom width: depth ratio has been exceeded.

  KHOV0625

...+ PP. 33-41

- Ided to Detail 7. Please provide the sediment basin top of berm elevations at the sediment basin detail. heet ZB Anti-seep collar information should also be included at the detail. tail Added 8. The sediment basin emergency spillway detail is incomplete. Please provide accurate eet 28 details for all proposed emergency spillways. The detail should also show the lining e Also from crest of spillway down to the toe of the basin berm. cef 39 15 ROCK Detail Please provide details of the trash-rack / Anti-vortex device. Sheet 29 Detail 10. Please clarify the permanent basin outlet pipe diameter for basins 1,2 and 3. Sheet 39 Iculations 11. Sediment basins and traps must outlet to an adequate channel of conveyance. Please show the receiving watercourses for the sediment basins and trap on the E&S plan. land to Report Provide supporting calculations to show that the receiving watercourse has sufficient 137-39 capacity. an Adjustantel 2. Silt fence must be installed at level grades (parallel with existing contours). 13. Silt fence must not be placed in areas of concentrated flows (basin outlets). tails added 14. Silt fence must outlet to stable areas. hec 🛊 8 "133" FF) 15. Please specify silt fence size on the E&S plan sheet. Please refer to the Chapter 102 Manual Table 18 for slope length requirements. Impact -16. Waters of the Commonwealth have been delineated on proposed Lots 15-16 and Road B. added around This work may require permits from the DEP. Please include a copy of the permit inetr application face sheet in the plan Narrative. neet 26 usted Plan 17. Please show locations of the proposed Temporary Roadway Diversion Berms and rect 24 Temporary Diversion Berm / Channel as detailed on sheet 29. For example, a diversion should be placed on Road A to divert runoff into the sediment basin.
- 18. Please refer to the Chapter 102 Manual for the recommended inlet protection details. The proposed Type "M" Inlet Bailed Straw Barrier is not adequate inlet protection. Also, the proposed siltsack should not be used as a primary BMP to remove sediment from site first 5 heet 29 runoff water.

19. Please remove the Individual Lot Construction Detail from the detail sheet.

i eve d

es Modified 20. E&S Control Note #9 (sheet 29) is incorrect. Soil stockpiles and areas where activities have ceased should be stabilized immediately. Note # 12 15 also Incorrect.

When these items are added to the plan, another review for adequacy can be made.

Sincerely,

Michael Shannon

Erosion Control Technician

cc: Design Engineer

Montgomery County Planning Commission

Municipality

File

Other Adjustments:

Sequence of Construction Modified - Sheet 24, Report P. 5
Eds Notes Modified - Sheet 29, Report p4
Soil Information Added & Adjusted on Sheet 10.

Suffe (0/4) for Endform?

## PINE ROAD SITE

#### EROSION AND SEDIMENT POLLUTION CONTROL NARRATIVE & COMPUTATIONS PROJECT NO. 99-284

LOWER MORELAND TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA

> SEPTEMBER 1, 2000 REVISED APRIL 1, 2002

> > For:

Hovnanian Pennsylvania, Inc. Makefield Executive Quarters 301 Oxford Valley Road, Suite 1503 Yardley, Pennsylvania 19067

Prepared by:

PER APRIL 30 2002

#### **BOUCHER & JAMES, INC.**

Consulting Engineers

P.O. Box 904 Doylestown, PA 18901 (215) 345-9400 39 North 7th Street, Suite 101 Stroudsburg, PA 18360 (570) 424-9221

127 S. Fifth Street, Suite 185 Quakertown, PA 18951 (215) 538-7880

143 Level Road Collegeville, PA 19426-3313 610-489-4506 Fax: 610-489-9795

49.7 - 47.2

July 29, 2002

RECEIVED

Acres:

AUG 0 8 2002

LOWER MORELAND TOWNSHIP

Hovnanian Pennsylvania, Inc. 301 Oxford Valley Road, Suite 1503 Yardley, PA 19067

RE: Pine Road Site

**General Permit # PAR10T682** Lower Moreland Twp., Montgomery County

Dear Applicant,

Enclosed is the above-referenced permit which authorizes the discharge of storm water from the construction activity described in the final Erosion and Sediment Pollution Control Plan and Notice of Intent (NOI). Please ensure that the E&SPC Plan is fully implemented and available at the construction site.

The Montgomery County Conservation District has reviewed the erosion and sedimentation control plan to determine whether it is adequate to satisfy the requirements of Chapter 102, Erosion Control Rules and Regulations. The Conservation District assumes no responsibility for the implementation of the plan or the proper construction and operation of the facilities contained in the plan. This plan as determined to be adequate by the Montgomery County Conservation District is valid for two years from date of issuance. Should any party require revisions or alterations to this Erosion and Sediment Pollution Control Plan as of this date, this letter is nullified. Resubmission of revisions will be charged a minimum of twenty-five percent of the original application fee. The District reserves the right to assess a full review fee if preliminary examination indicates substantial alterations to the plan have occurred. If earth disturbance does not occur within the two year limit of this review, a resubmission to the District will be viewed as an original application and the full review fee will be charged based on the fee schedule in effect at the time of application.

Please read carefully Parts A, B, and C of the permit which detail the terms and conditions of this authorization. Conservation District staff and/or representatives of the Department of Environmental Protection may inspect this earthmoving activity to determine compliance with applicable permit requirements and Chapters 92, 101, and 102 Rules and Regulations of the Clean Streams Law.

KHOV0629

EHV-124

Permit requirements and federal regulations of 40 C.F.R. 122.21(b) require "when a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit". Please be advised that once a contractor has been selected for the project, they must either be added on as a co-permittee or have the permit transferred to them. The co-permittee/transferee form must be received by this office no later than 30 days prior to the co-permittee/transferee action taking place. The enclosed form must be used to add a co-permittee/transferee.

Enclosed also is a Notice of Termination (NOT) form to be completed and filed with the district / department once construction activities have ceased and final stabilization has been achieved.

The county conservation district and /or the regional office, Soils and Waterways Section, must be notified by telephone or certified mail at least seven (7) days prior to the start of earthmoving.

Please be advised that a pre-construction meeting is requested. When the date of the meeting is selected, please contact the District Representative whose signature appears below to schedule a pre-Construction Meeting.

This authorization does not relieve the applicant from applying for and obtaining any and all additional permits or approvals from local, state or federal agencies for the construction activity described in the NOI.

If you have any questions regarding this authorization please contact this office at the above address.

Sincerely,

Michael Shannon

Erosion Control Technician

Enclosures:

cc:

Permit # PAR10T682

(1) Form 3600-FM-WQ0228: 9/97Transferee/Co-Permittee Application

(1) Form 3600-FM-WQ0229: 9/97 Notice of Termination

Soil & Waterways Section, Southeastern Regional Office, DEP

Montgomery County Planning Commission

Municipality

**Engineering Consultant** 

Project File





# MONTGOMERY COUNTY CONSERVATION DISTRICT

143 Level Road • Collegeville, PA 19426-3313 • 610-489-4506 • Fax: 610-489-9795 www.montgomeryconservation.org

April 23, 2003

Hovnanian Pennsylvania, Inc. Attn: Mike McCleery 301 Oxford Valley Road, Suite 1503 Yardley, PA 19067

RE:

Pine Road Site, aka The Estates at Huntingdon Valley General Permit #PAR10T682 Lower Moreland Township, Montgomery County Acres: 49/47 Residential

Dear Mr.McCleery,

The Montgomery County Conservation District has reviewed the April 14, 2003 revisions to the Erosion and Sediment Pollution Control Plan for the above-referenced project. The plan REVISIONS appear adequate to meet State requirements on erosion and sedimentation control, and should be adequate to control erosion on the project site during construction. The revised plans will be incorporated into the existing NPDES permit PAR10T682.

The Conservation District reviews this plan solely to determine whether it is adequate to satisfy the requirements of Title 25, PA Chapter 102, the erosion control regulations of the Department of Environmental Protection. By a determination that the plan is adequate to meet those requirements, neither the Conservation District nor the County assumes any responsibility for the implementation of the plan.

It is the responsibility of the owner/developer to correct or modify any practices, which prove inadequate to control erosion and sediment pollution during and after construction. A copy of this plan, including the narrative, must be available at all times at the site of the activity, in accordance with soil erosion and sedimentation control regulations.

This plan, when determined to be adequate by the Montgomery County Conservation District, is valid for two years from date of issuance. Should any party require revisions or alterations to this Erosion and Sediment Pollution Coutrol Plan after the final review by the District, this letter is nullified and a resubmission to the District will be viewed as an original application.

Please read carefully Parts A, B, and C of the permit which detail the terms and conditions of this authorization. Conservation District staff and/or representatives of the Dept. of Environmental Protection may inspect this earthmoving activity to determine compliance with applicable permit requirements and Chapters 92, 101, and 102 Rules and Regulations of the Clean Streams Law.

Permit requirements and federal regulations of 40 C.F.R. 122.21(b) require "when a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit". Please be advised that once a contractor has been selected for the project, the permit must either be transferred to the contractor or the contractor must be made a co-permittee. The enclosed form must be used to add a co-permittee.

Enclosed is a Notice of Termination (NOT) form to complete and return to this office when construction activities have ceased and final stabilization has been achieved. This authorization does not relieve the applicant from applying for and obtaining any and all additional permits or approvals from local, state or federal agencies for the construction activity described in the Notice of Intent (NOI).

If you have any questions regarding this authorization please contact this office at the above address.

Sincerely,

Jesse Howe

Assistant District Manager

cc:

Soil & Waterways Section, Southeastern Regional Office, DEP

Montgomery County Planning Commission

Municipality

**Engineering Consultant** 

Project File

K. HOVNANIAN- E&S	SELF INSPEC	TION REPORT		
PROJECT NAME:	Decebrook			
LOCATION: Lo	ven Makefield	Bucks	PA	
DATE OF INSPECTION:	5-23-05	county 	state	
TYPE OF INSPECTION:	WEEKLY: MONTHLY:		APPROVED E&S PLAN	ON SITE: yes 🛂 no 🛘
	POST STORM EVE	ENT: D	NPDES Permit on Site:	yes ro □
INSPECTION PERFORMED	BY:	Domerick Pettinel	<u>li</u>	
WEATHER: 64° Clas	yn_			

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance) Tracking Pads (on-lot) Silt Fence Inlet Protection Sediment Risers Baffie Walls Skimmer Stone Filters Rip Rap Aprons Silt Bag Temp./Perm. Stabilization Dust Control	8828822288	Clarif Retresh	Throughout site	Scheduled Marshavance	マ マ マ マ マ マ マ マ マ マ マ マ マ マ マ マ マ マ マ
OUTSTANDING ITEMS FROM PREVIOUS INSP.:  ADDITIONAL COMMENTS:	iry, please describe  Had Labore  Sheduld br	er's clerm silt i	and refresh store i	et inlets Throughout	<u></u>

K. HOVNANIAN- E	&S SELF INSPEC	TION REPORT		
PROJECT NAME:	Deer broo	K		
LOCATION:	Lower makefield	Bucks county	PA	
DATE OF INSPECTION:	5-18 - 05	County	state	
TYPE OF INSPECTION:	WEEKLY:	0	APPROVED E&S PLAN ON SITE: yes	no E
	MONTHLY: POST STORM EVE	D ENT: 3	NPDES Permit on Site: yes 1 no [	
INSPECTION PERFORM	ED BY:	Domerick Petti	velli	

WEATHER: 66° Clean

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance)	Y				Y 60
Tracking Pads (on-lot)	Ø N Ø N	Add Stone	Lots 8-9-112	Scelele mantonimum	Y 🐠
Silt Fence					Y 60
Inlet Protection	Ø N				Y DE
Sediment Risers	(2) N		·		Y d\$
Baffie Walls	Ø N				Y
Skimmer	Y 🐠		•.		Y
Stone Filters	Y 6\$2		ŧ •	i	, Y 🐠
Rip Rap Aprons	60 N				Y ASD
Silt Bag	Y 057				Y 150
Temp./Perm. Stabilization	Y (N)				Y dQ
Dust Control	:				Y 40
OUTSTANDING ITEMS FROM PREVIOUS INSP.:	Y (I) if Y, please describe				
ADDITIONAL COMMENTS:	Contracted Scheduld be	NAT to REstore	e 5-20-05 Pm	8-9-8/2 ON 5-20-05	

K. HOVNANIAN- E	&S SELF INSPEC	TION REPORT		_
PROJECT NAME:	DEERbrook	۷.		_
LOCATION:	Lowen Markefield	Bucks	<u>PA</u>	
DATE OF INSPECTION:	5-9-05	county 	state	
TYPE OF INSPECTION:		0	APPROVED E&S PLAN ON S	3ITE: ves 🗹 no 🗅
`	MONTHLY: POST STORM EV	ENT: D	NPDES Permit on Site: yes	₽∕no □
INSPECTION PERFORM	MED BY:	Domerick Pettin	elli	
WEATHER: 71°	Clem			

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance)	Y Ø				Y 60
Tracking Pads (on-lot)	Ø N				Y 642
Silt Fence	Ø N	Reattach Fabric	BASIN	Scheduled maintainma	Y 60P
Inlet Protection	Ø N				Y
Sediment Risers	Ø N				Y OD
Baffle Wails	Ø N	,			Y Ø
Skimmer	Y AS				Y 00
Stone Filters					Y DP
Rip Rap Aprons	Ø N				Y
Silt Bag	Y 62				Y 652
Temp./Perm. Stabilization	Y 64				YAY
Dust Control					Y 44
OUTSTANDING ITEMS FROM PREVIOUS INSP.:	Y (V) if Y, please describe				
ADDITIONAL COMMENTS:	Had Labor	ers lift and Re	-Attach Silt Force	FAbric on super silt Fe	NCC IN
ADDITIONAL COMMENTS:	puein on	5-10-05			

K. HOVNANIAN- E	&S SELF INSPECT	TION REPORT		
PROJECT NAME:	Doerbrook			
LOCATION:	Lower Makefield	Bucks	PA	
DATE OF INSPECTION:	5-2-05	county —	state	
TYPE OF INSPECTION:	WEEKLY:		APPROVED E&S PLAN	ON SITE: yes no 1
	MONTHLY: 1 POST STORM EVE	D <b>NT</b> : D	NPDES Permit on Site:	yes 🖭 no 🗓
INSPECTION PERFORM	NED BY:	Domerick Pettinel	<u> </u>	
WEATHER: 60°	Light RAIN			

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance)	Y 🚳		•		Y (N)
Tracking Pads (on-lot)	Ø N		ì		Y 245)
Silt Fence	Ø N				Y 800
inlet Protection	6/ N		,		Y 85
Sediment Risers	Ø N				Y 180
Baffle Walls	Ø N				Y M
Skimmer	Y 000		: .		Y MD
Stone Filters	Y 60				Y AD
Rip Rap Aprons	Ø N				Y (N)
Silt Bag	Y 05				Y Ø
Temp./Perm. Stabilization	Y Ø				Y 602
Dust Control					Y 60
OUTSTANDING ITEMS FROM PREVIOUS INSP.:	Y (N) if Y, please describe				
ADDITIONAL COMMENTS:	Scheduled	broom to Clean	site on 5-3-05		

K. HOVNANIAN-E	&S SELF INSPECTION	REPORT		]
PROJECT NAME:	DEERBROOK			_
LOCATION:	Lower Makefield	BucKs county	<u>PA</u> state	
DATE OF INSPECTION:	4-28-05	County	amid	
TYPE OF INSPECTION:	WEEKLY:		APPROVED E&S PLAN ON S	SITE: yes 🖰 no 🗇
•	MONTHLY:   POST STORM EVENT:		NPDES Permit on Site: yes	2∕no □
INSPECTION PERFORM	MED BY: Dome	wick Pottine	<u>'i                                     </u>	
WEATHER: 55°C	loudy LATE PARIN			

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance)	Y 60				× (B)
Tracking Pads (on-lot)	Ø N				Y 00
Silt Fence	QP N				Y 60
Inlet Protection	OP N				Y 15
Sediment Risers	Ø N				YOU
Baffle Walls	Ø N				Y \$
Skimmer	YM				Y
Stone Filters	Y 007				
Rip Rap Aprons					Y 457
Silt Bag	Y M				Y 000
Temp./Perm. Stabilization	Y &				Y 🗗
Dust Control					Y 🐠
OUTSTANDING ITEMS FROM PREVIOUS INSP.:	Y ( if Y, please describe				
ADDITIONAL COMMENTS:	Schechled	Broom To Chemp S	ite 4-22-05 Pm		

PROJECT NAMÉ:	Decibrack				
LOCATION:	C. Mukesteld	Bucks	æ		
DATE OF INSPECTION:	4/4/05 two	county	state		
TYPE OF INSPECTION:	WEEKLY: (		APPROVED E&S PLAN ON SITE:	yes g no 🗆	
	POST STORM EVEN	IT: B	NPDES Permit on Site: yes D	no 🖳	

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken		graphs ached
Tracking Pads (entrance)	Y Ø				Y	N
Tracking Pads (on-lot)	N Q				Y	N
Silt Fence	Ø N				Y	N
Inlet Protection	N (S)	refresh (clean	throughout site	Schedile Contractor	Y	N
Sediment Risers	Ø N		7		Y	N
Baffle Walls	(P) N				Y	N
Skimmer	- <del>V</del>				Y	N
Stone Filters	Y (10)				Y	N
Rip Rap Aprons	(Y) N				Y	N
Silt Bag	YOR				Y	N
Temp./Perm. Stabilization	YW	,			Y	N
Dust Control					Y	N
OUTSTANDING ITEMS	Y N					
FROM PREVIOUS INSP.:	if Y, please describe					
ADDITIONAL COMMENTS:	Hay poin b	at. 42-2.5 of particular at into	tain. Exs cunt ets news to he	was held of went. When we the	5 .	

cc; EROSION CONTOL FILE COMMUNITY MGR.

ALL FORMS SHOULD BE FAX TO 215-357-7725

LWC 4/4/05

PROJECT NAME:	Deerbrook			
LOCATION	1. Maketield	Bucks	元	
DATE OF INSPECTION:	3/29/05 twp	county	state	
TYPE OF INSPECTION:	WEEKLY: MONTHLY:		APPROVED E&S PLAN ON SITE: yes	o B no □
	POST STORM EVE		NPDES Permit on Site: yes □ no	9
INSPECTION PERFORME	ED BY:	larry lite		
WEATHER: Actour	41-59°	,		

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance)	Y (N)				Y N
Tracking Pads (on-lot)	OF N				YN
Silt Fence	Ø N				YN
Inlet Protection	Ø N	can redinent rakce	Throught site	schediled authoriter	YA
Sediment Risers	Ø N	1.9			YN
Baffle Walls	(V) N				YN
Skimmer	Y (N)				YN
Stone Filters	Y (N)				YN
Rip Rap Aprons	DN				YN
Silt Bag	Y				YN
Temp./Perm. Stabilization	Y (N)	,			YN
Dust Control					YN
OUTSTANDING ITEMS FROM PREVIOUS INSP.:	if Y, please describe				
ADDITIONAL COMMENTS:	bediment Ne	uce at Lot 2 not needs to be overned	for thets au	t wis reflected.	

CC: EROSION CONTOL FILE COMMUNITY MGR.

ALL FORMS SHOULD BE FAX TO 215-357-7725

PROJECT NAME;	DEERPROOF			<del></del>
LOCATION:	L. Makefield	Bicks	PA	
DATE OF INSPECTION:	3/21/05	county	state	,
TYPE OF INSPECTION:	WEEKLY: MONTHLY:		APPROVED E&S PLAN ON	SITE: yes & no []
	POST STORM EVEN	IT: 🗹	NPDES Permit on Site: y	es 🗆 no 🖫
INSPECTION PERFORM	ED BY:	lary lutz		

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance)	Y O				YN
Tracking Pads (on-lot)	(Y) N	Rotorsh / Istall	all lots under Corst.	Notited C.M.	YAD
Silt Fence	Ø N	Belice	Lot Z	schewled Contractor	YO
nlet Protection	Y O	Totallation necues	all Inlets	Scheduled Contractor	Y (ND)
Sediment Risers	Q) N	No			YN
Baffle Walls	ØN	NO			YN
Skimmer	Y (N)				YN
Stone Filters					YN
Rip Rap Aprons	Ø N	NO			YN
Silt Bag	Y (D)				YN
Temp./Perm, Stabilization	Y (N)				YN
Dust Control					YN
OUTSTANDING ITEMS	Y N				
ROM PREVIOUS INSP.:	if Y, please describe				
	Soft bitt	Gence needs to h	e reflect schedu	led for wed. 3/2	3
ADDITIONAL COMMENTS:	Inlet protes	ctic needed on	all inlets shed	wed to this zer	<b>4</b> .
	Domewick 1	Pettirelli (C.M.) w.	Il have NET Exa	led for Wed. 3/2 Wed for this 2/2 white install to	eling pads
ROSION CONTOL FILE	Road's are	a <i>mess. Schedule</i> ALL FORMS SHO	OULD BE FAX TO 215-357-7725	white install to except your week	ZI 6-1-0-4
			Wi	" arge 1000s We	The DODGOT

PROJECT NAME:	DEERbrook	د	·		
	wan MOKE Field	YARD Ley	PA- state		
DATE OF INSPECTION:	WEEKLY:	<b>-</b> ,	APPROVED E&G PLAN ON S	TE: yes 19 no 0	
INSPECTION PERFORMED E		Domerick Pettin	NPDES Permit on Site: yes	□ no □	
Eas Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photograph Affached
Tracking Pads (entrance) Tracking Pads (en-lot) Sili Fence	Y 80 N	1 PAD reeded	Lot=13	COME NET to INSTANT PAR	N O
Inlet Protection Sediment Risers	8 N	Clear Sedinert at stop	e at inlet	LAborers Scrapeda Should	Y N Y N
Baffie Walls Skimmer Stone Filters	× 8				Y N Y N
Rip Rap Aprons Slit Bag Temp (Perm, Stabilization	Y BB				Y N Y N Y N
I GITIPATE OFFICE OND DIRECTION					YN
Dust Control OUTSTANDING ITEMS FROM PREVIOUS INSP.:	Y (5)			1. with Controls 11	

ROJECT NAME:	Deerbrook	
OCATION:	Love Mukefield Bucks	PA
ATE OF INSPECTION:	4/18/05 county	state
PE OF INSPECTION:	WEEKLY:	APPROVED E&S PLAN ON SITE: yes 9/ no 0
	MONTHLY:   POST STORM EVENT:	NPDES Permit on Site: yes 8 no 0
SPECTION PERFORME	DBY: Larry lut	Z

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photogra Attach	
Tracking Pads (entrance)	Y D				YN	1
Tracking Pads (on-lot)	Ø N				YN	1
Silt Fence	Ø N				YN	
Inlet Protection	(Ý) N	replace / repair		schediled maintenance	2 Y B	D
Sediment Risers	Ø N				YN	1
Baffle Walls	(X) N				YN	1
Skimmer	Y (N)				YN	1
Stone Filters	YZ				YN	1
Rip Rap Aprons	Ø N				YN	-
Silt Bag	Y Ø				Y	1
Temp./Perm. Stabilization	Y (N)	,			YN	1
Dust Control					YN	1
OUTSTANDING ITEMS FROM PREVIOUS INSP.:	Y N if Y, please describe					
ADDITIONAL COMMENTS:	beliedvied Wed 41	from for inle-	t protection repu	ills for		

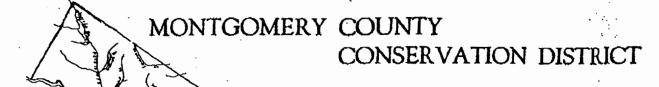
cc: EROSION CONTOL FILE COMMUNITY MGR.

ALL FORMS SHOULD BE FAX TO 215-357-7725

Cul 4/18/05

#### SECTION 308 RESPONSE FORM

Project/Property Name: Huntingdon Valley, Estates
Property Location: Pine and Tomlinson Road
Lower Moreland, PA
Legal Name of Entity Undertaking Development: K. Hovnanian at Lower Moreland I, LLC
Address: 1170 Wheeler Way, Suite 200  Langhorne, PA 19047
Telephone Number: 215-478-9400 CEO: Barry Edelman; See General Objection "L"
Relationship to Hovnanian Enterprises, Inc.: See General Objection "M"
Responsibility for Project (Owner, Developer, Contractor, etc.) Developer
Date of commencement of construction activity: 2002
Current stage of construction: Villages - complete; Estates - ongoing
If earth disturbance activities are completed, date of completion: 5/2003 for Villages
Date of local/county approval for erosion and sediment control: 7/29/02; revised 4/23/03
Copy of local/county approval attached?  Yes  No (If "yes," see Attachment 1)
NPDES Permit No.: PAR10T862
Date of NPDES Permit: (2/21/2002) 4/17/2001
Copy of NPDES Permit attached? X Yes No (If "yes," see Attachment 2)
Copy of signed NPDES application attached?   Yes  No (If "yes," see Attachment 3)
Copy of periodic self-inspection reports attached?  Yes  No (If "yes" see Attachment 4)
copy of periodic son inspection repetite animatics.
Explanation of reasons why no NPDES permit if applicable: N/A
Explanation of feasons why no NPDES permit if applicable.
Name of receiving water and location of stormwater discharge: Tributary to Huntingdon Valley Creek
If discharge to a storm sewer, name of municipal operator, location of discharge into storm
sewer, and name of receiving water (if known) N/A
A 13'4' 1 Tu C 4'
Additional Information



143 Level Road Collegeville, PA 19426-3313 610-489-4506 Fax: 610-489-9795

Acres: 30.6 - 17.2

April 17, 2001

Hovnanian Pennsylvania, Inc. 301 Oxford Valley Road, Suite 1503 Yardley, PA 19067

RE: The Village of Huntingdon Valley
General Permit # PAR10T862
Lower Moreland Twp., Montgomery County

Dear Applicant,

Enclosed is the above-referenced permit which authorizes the discharge of storm water from the construction activity described in the final Erosion and Sediment Pollution Control Plan and Notice of Intent (NOI). Please ensure that the E&SPC Plan is fully implemented and available at the construction site.

The Montgomery County Conservation District has reviewed the erosion and sedimentation control plan to determine whether it is adequate to satisfy the requirements of Chapter 102, Erosion Control Rules and Regulations. The Conservation District assumes no responsibility for the implementation of the plan or the proper construction and operation of the facilities contained in the plan. This plan as determined to be adequate by the Montgomery County Conservation District is valid for two years from date of issuance. Should any party require revisions or alterations to this Erosion and Sediment Pollution Control Plan as of this date, this letter is nullified. Resubmission of revisions will be charged a minimum of twenty-five percent of the original application fee. The District reserves the right to assess a full review fee if preliminary examination indicates substantial alterations to the plan have occurred. If earth disturbance does not occur within the two year limit of this review, a resubmission to the District will be viewed as an original application and the full review fee will be charged based on the fee schedule in effect at the time of application.

Please read carefully Parts A, B, and C of the permit which detail the terms and conditions of this authorization. Conservation District staff and/or representatives of the Department of Environmental Protection may inspect this earthmoving activity to determine compliance with applicable permit requirements and Chapters 92, 101, and 102 Rules and Regulations of the Clean Streams Law.

Permit requirements and federal regulations of 40 C.F.R. 122.21(b) require "when a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit". Please be advised that once a contractor has been selected for the project, they must either be added on as a co-permittee or have the permit transferred to them. The co-permittee/transferree form must be received by this office no later than 30 days prior to the co-permittee/transferree action taking place. The enclosed form must be used to add a co-permittee/transferree.

Enclosed also is a Notice of Termination (NOT) form to be completed and filed with the district / department once construction activities have ceased and final stabilization has been achieved.

The county conservation district and /or the regional office, Soils and Waterways Section, must be notified by telephone or certified mail at least seven (7) days prior to the start of earthmoving.

Please be advised that a pre-construction meeting is requested. When the date of the meeting is selected, please contact the District Representative whose signature appears below to schedule a pre-Construction Meeting.

This authorization does not relieve the applicant from applying for and obtaining any and all additional permits or approvals from local, state or federal agencies for the construction activity described in the NOI.

If you have any questions regarding this authorization please contact this office at the above address.

Sincerely

Michael Shannon

**Erosion Control Technician** 

Enclosures:

Permit # PAR10T862

(1) Form 3600-FM-WQ0228: 9/97Transferee/Co-Permittee Application

(1) Form 3600-FM-WQ0229: 9/97 Notice of Termination

cc: Soil & Waterways Section, Southeastern Regional Office, DEP

Montgomery County Planning Commission

Municipality

**Engineering Consultant** 

Project File

WQ0079 9/97

# COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER QUALITY PROTECTION

# APPROVAL OF COVERAGE UNDER THE NPDES GENERAL PERMIT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (PAG-2)

	NPDES PERMIT NO: PA-R 1	OT862	N WALLEY	
	T	HE VILLAGE OF HUNTINGDO OWER MORELAND TOWNSHIP,	MONTCOMERY	COUNTY
<del></del>	<u></u>	OWER MORELAND TOWNSHIT,	HOWIGOIDAL	0001111
	with the provisions of the Clean Water Law, as amended, 35 P.S. Section			
approves the N	lotice of Intent (NOI) submitted for co	verage by:	•	
	FACILITY NAME AND ADDRESS:	•	•	
	HOVNANIAN PENNSYLVANIA, IN	IC.		
	301 OXFORD VALLEY ROAD, SU	JITE 1503		<u>.</u>
	YARDLEY, PA 19067			
.*				
to discharge sto	ormwater to the following receiving wa	ater(s):		
	TRIB. TO HUNTINGDON VALLEY	CREEK		
requirements ar sources compo	Department's enclosed PAG-2 when dother terms, conditions, criteria and esed entirely of stormwater associated to surface waters of the Commonwest sewer.	nd special requirements for the	e discharge of sonstruction activ	stormwater from point ity, as defined in this
COMMENCE FIVE YEARS	TO DISCHARGE IN ACCORDAN ON THE DATE OF THE APPRO WHEN CONDUCTED PURSUAN DED. BY THE DEPARTMENT	OVAL OF COVERAGE, AN IT TO SUCH TERMS AND	D IS VALID F CONDITIONS.	OR A PERIOD OF COVERAGE MAY

ACCEPTABLE NOI RENEWAL IS SUBMITTED TO THE DEPARTMENT AT LEAST 90 DAYS PRIOR TO DATE OF COVERAGE TERMINATION, UNLESS PERMISSION FOR SUBMISSION AT A LATER DATE HAS

Authorized by:

Attachment 2

KHOV0646

BEEN GRANTED BY THE DEPARTMENT.

Coverage Approval Date: APRIL 17, 2001

Montg. Co. Conservation District

143 Level Road

Collegeville, PA 19426

K. HOVNANIAN- E	S SELF INSPEC	TION REPORT		= EHC *	7
PROJECT NAME:	Entertos a	et Hustingdon	Valley		
LOCATION:	L. Moreland	Montgomery	PA		
DATE OF INSPECTION:	3/29/05	County —	state	,	
TYPE OF INSPECTION:	WEEKLY: MONTHLY;		APPROVED E&S PLAN	ON SITE: yes  no □	
	POST STORM EV	ENT: B	NPDES Permit on Site:	yes 🗆 no 🖫	
INSPECTION PERFORME	D BY:	Larry Lutz			
WEATHER TOOM	41-59°	,			

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance)	Y				Y N
Tracking Pads (on-lot)	Y OF	Tighal	all lots under Cough.	Notified C.M.	Ø N
Silt Fence	Ø N	Reptite To stall	throwhout site	apeculed installation	Ø N
Inlet Protection	Y	thisfall	Phose Z/lots 142	" "	Ø N
Sediment Risers	Ø N				YN
Baffle Walls	Ø N				YN
Skimmer	Y (N)				YN
Stone Filters	Y	Tislak	Cosins huste along	suea liall. schedited	YA
Rip Rap Aprons	(Y) N				YN
Silt Bag	Y				YN
Temp./Perm. Stabilization	Y (N)	,			YN
Dust Control					YN
OUTSTANDING ITEMS	YN				
FROM PREVIOUS INSP.:	if Y, please describe				
	EXS antol:	s beriously locks	is an Khis sixe.	Will take fine to	
ADDITIONAL COMMENTS:	bring wite "	into confliance.	Reeds in extremel	Will take forme to if poor cand Low. L. Will surge dis	
	scheduled &	weeper for Z &	weeks per week	t. Will singe di	t from

cc: EROSION CONTOL FILE COMMUNITY MGR.

ALL FORMS SHOULD BE FAX TO 215-357-7725

Roads as well lul 3/24/05

K. HOVN NIAN-E	SS SELF INSPECT	ION REPORT	EHU#
PROJECT NAME:	Estates c	Huntongdon	Valley
LOCATION:	L. Moreland	Morkoner	<del>7</del>
DATE OF INSPECTION:	4/4/05 twp	county	state
TYPE OF INSPECTION:	WEEKLY:	<b>3</b>	APPROVED E&S PLAN ON SITE: yes 19 no 1
	MONTHLY:   POST STORM EVEN	IT: 🗹	NPDES Permit on Site: yes □ no 🖭
INSPECTION PERFORME	D BY:	lang litz	-
WEATHER: Classes	41-60	·	

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance)	Y D				YN
Tracking Pads (on-lot)	Ø N	refresh as needed	all lots under and.	Notified C.M.	YN
Silt Fence	Ø N	report I replace	Phose 2 / Lot 1,2,5	shedred autoctor	YN
Inlet Protection	(X) N	refresh Idean	4	4	YN
Sediment Risers	(A) N	7			YN
Baffle Walls	Ø N				YN
Skimmer	Y (D)				YN
Stone Filters	(V) N	resider.	Benny Calons Screen (1)	11 Scheduled Centractor	(Y) N
Rip Rap Aprons	Ø N	7	142		YN
Silt Bag	Y (1)				YN
Temp./Perm. Stabilization	Y (N)	,			YN
Dust Control					YN
OUTSTANDING ITEMS FROM PREVIOUS INSP.:	Y N if Y, please describe				
ADDITIONAL COMMENTS:	How rain or waded rapor 4/5/05.	rs. scroped roadux	all controls installed bys today, fym wi	d last week. Il solarl repairs on	

cc: EROSION CONTOL FILE COMMUNITY MGR.

Wel 4/4/05

. <i>C</i>	(	(W3
K. HOVNANIAN- E&S SELF INSPECTION F	REPORT	
PROJECT NAME: Estates C Hu.	extincton Valley	
LOCATION: Cover Moreland M	Yortgonery PA	
DATE OF INSPECTION: 4/18/05	County state	
TYPE OF INSPECTION: WEEKLY: MONTHLY:	APPROVED E&S PLAN ON SITE: yes P no D	
POST STORM EVENT:	NPDES Permit on Site: yes □ no 🖼	
INSPECTION PERFORMED BY:	rry Wtz	
WEATHER: Clar 50-77	,	

					Photographs
E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Attached
Tracking Pads (entrance)	YW				YN
Tracking Pads (on-lot)	Ø N	18korah as wesder	all less under Const.	Notitied C.M.	YN
Silt Fence	Ø N	reail / myfoll	Physe 2/lots 93/94	Generaled compostor	Ø N
Inlet Protection	N N	refisch repair	Phose Z Glong	ii on	Ø N
Sediment Risers	N	replace	Bisin # 2 Sucen City	1, 4	Ø N
Baffle Walls	N				YN
Skimmer	Y (1)				YN
Stone Filters	N (	replace	Phose Z c Dot. Bant	achilled confidenter	Y 457
Rip Rap Aprons	(Ý) N				YN
Silt Bag	× Ø				YN
Temp./Perm. Stabilization	(Y) N				YN
Dust Control					YN
OUTSTANDING ITEMS	YN				•
FROM PREVIOUS INSP.:	if Y, please describe				
	InHakatian of	614 fonce needed	at rar of lots 93	and Et. Also need to	
ADDITIONAL COMMENTS:	repair tree o	ro techan force inth	at onea. Installation	of Mybale burner so	hedred
The state of the s	at Bushy.	•		·	
	1				

COMMUNITY MGR.

lul 4/18/05

K. HOVNANIAN- E&S SELF INSPECTION REPORT	
PROJECT NAME: ESTATES AT MUNTINGON	) valley
LOCATION: LOWER MORELAN MONTGOMERY	<u>Qa</u>
DATE OF INSPECTION: 4/25/05 county	state
TYPE OF INSPECTION: WEEKLY: MONTHLY: D	APPROVED E&S PLAN ON SITE: yes D no D
POST STORM EVENT:	NPDES Permit on Site: yes D no D
INSPECTION PERFORMED BY: Town Gesser	Managhapha.
WEATHER:	

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance)	Y (P)		·		YN
Tracking Pade (on-lot)	(A) M	LOT #95		BAN SOMENDE MASIS	Ý (8)
Silt Fence	$\odot$ N				YN
Inlet Protection	Y) N	GENERAL CHAN		SPEET STEELS	Y (N)
Sediment Risers	(Y) N ;				YN
Baffle Walls	(Y) N				YN
Skimmer	YN				YN
Stone Filters	(A) M	GENERAL CKAN		8+m 5000010 A/20	YN
Rip Rep Aprons	(A) M			32.37.1120	YN
Săt Bag	Y NO				YN
Temp/Perm. Stabilization	(Y) N				YN
Dust Control					YN
OUTSTANDING ITEMS	YN				
FROM PREVIOUS INSP.:	If Y, please describe				
ADDITIONAL COMMENTS:					

co: EROSION CONTO,, FILE COMMUNITY MGR.

K. HOVNANIAN- E&S SELF INSPECTION REPORT	
PROJECT NAME: ESTATES AT MUNTILLOON V	JAlley
LOCATION: LOWER MORELAND MONTEOMERY	State
DATE OF INSPECTION: 5/2/05 COUNTY	
TYPE OF INSPECTION: WEEKLY:	APPROVED E&S PLAN ON SITE: yes D no D
MONTHLY: D POST STORM EVENT: D	NPDES Permit on Site: yes D no D
INSPECTION PERFORMED BY: JOAN GESSER	
WEATHER:	
N. J. A No. alad	Ph.

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance) Tracking Pads (on-lot) Silt Fance Inlet Protection Sediment Risers Baffle Walls Skimmer Stone Filters Rip Rep Aprons Silf Bag Temp JPerm. Stabilization	2822822223	Lor # 92 General Cleans OX OX OX	CarOkars	CONDIERS) 5/2/05 STREET CHAN 5/3/5	Y N Y N Y N Y N Y N Y N Y N
DUBL CONTROL OUTSTANDING ITEMS FROM PREVIOUS INSP.: ADDITIONAL COMMENTS:	Y N  If Y, please describs				YW

COMMUNITY MGR.

K. HOVNANIAN- E&S	SELF INSPECT	TON REPORT				
PROJECT NAME:	GIENES AT	1 Chalidraum T	JAlley			
	1/2 Morelan) 5/9/05	Mens Comery country	NA state			
DATE OF INSPECTION:  TYPE OF INSPECTION:	WEEKLY:	0	APPROVED E&S PLAN ON S	SITE: yes O no O		
	POST STORM EVE	•••	NPDES Permit on Site: yes	i □ no □		
INSPECTION PERFORMED	BY:	JOHN GESSER	-			
WEATHER:						
E&S Contro! Measures	· Used on Site	Maintenance Needed	Location of Repairs Needed			ographs tacked
Tracking Pads (entrance)	Y (N)				Y	N
Tracking Pads (on-lot)	Ø N	aL			Y	K
Sift Fence	(Y) N	OK.			Y	. N
Inlet Protection	₩ W	GENERAL CLAN	3TREET SLEEDER	R SCHOULD SANTON	A Y	N

Sift Fence	(Y) N	OK						1	14
Inlet Protection	ΘN,	GENERA	Chan	37865	SHEDER!	3cmoula)	SANJAM	Y	N
Sediment Risers		OV						Y	N
Baffle Walls	(Q) N	- ox						Υ -	N
Skimmer	Y (N)							<u> Y</u>	N
Stone Filters	(X) N	o<						· · · · · · · · · · · · · · · · · · ·	_ <u>N</u>
Rip Rap Aprons	⊗ N	oX						Y	N
Silt Bag	X (B)							Y	N
Temp /Perm. Stabilization	(A) N	OK_						Y	<u>N</u>
Dust Control								Y	N
OUTSTANDING ITEMS	Y N								
FROM PREVIOUS INSP.:	if Y, please describe								
ADDITIONAL COMMENTS:									

COMMUNITY MGR.

K. HOVNANIAN- E&S	SELF INSPECTION REPORT	
PROJECT NAME:	ESTARS AT YUNTUGON	Valley
LOCATION: LOW	ER MORELAND MONTGONERY	PA
DATE OF INSPECTION	5/16/05 county	state
TYPE OF INSPECTION:	WEEKLY:	APPROVED E&S PLAN ON SITE: yes [] no []
•	MONTHLY: D. POST STORM EVENT: D	NPDES Permit on Site: yes D no D
INSPECTION PERFORMED	BY: John Gesser	
WEATHER:		

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance) Tracking Pads (on-lot) Silt Fence Indet Protection Sediment Risers Baffle Walls Skimmer Stone Filters Rip Rap Aprons Silt Bag Temp./Perm. Stabilization	8-38-3333- 28-22-2-22	OK OK OK OK OK OK OK OK OK OK			Y N Y N Y N Y N Y N Y N Y N Y N Y N Y N
DUST CONTROL OUTSTANDING ITEMS FROM PREVIOUS INSP.: ADDITIONAL COMMENTS:	Y N If Y, please describe				Y

DO: EROSION CONTOLIFILE COMMUNITY MCR.

N N N N

K. HOVNANIAN- E&	S SELF INSPECT	ION REPORT			
PROJECT NAME:	ESTATES A	AL MUNTINGOOM	VAILE		
LOCATION:	LOWER MURELA	MONTGOMERY COUNTY	A Q state		
DATE OF INSPECTION:	5/24/05		<b>PULL</b>		
TYPE OF INSPECTION:	WEEKLY:		APPROVED E&S PLAN ON SI	TE: yes 🖸 no 🖸	
	MONTHLY: POST STORM EVE	ID ENT: B	NPDES Permit on Site: yes	ח מח ם	
INSPECTION PERFORME	D BY:	JOHN GESSER	hymmetic (Table		
WEATHER: ClwO	<del></del>				
	Hand on Pita	Maintenance Needed	Location of Renairs Needed	Action Taken	Photographs Attached
E&S Control Measures	· Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance)	N W	Maintenance Needed			Attached Y N
Tracking Pads (entrance) Tracking Pads (on-lot)	A B		LOT *62	BAM SCHAURO S/27	Attached Y N
Tracking Pads (entrance) Tracking Pads (on-lot) Silt Fence	(A) (A)	Reser AGRES 8.1	Lot *62	8+0 30m20160 5/27 8+0 30m20160 5/27	Attached  Y N Y N Y N
Tracking Pads (entrance) Tracking Pads (on-lot) Silt Fence Inlet Protection	N (S)		LOT *62	BAM SCHAURO S/27	Attached Y N
Tracking Pads (entrance) Tracking Pads (on-lot) Silt Fence Inlet Protection Sediment Risers	N 88 N N N N N N N N N N N N N N N N N	Reser AGRES 8.1	Lot *62	8+0 30m20160 5/27 8+0 30m20160 5/27	Attached  Y N Y N Y N Y N Y N
Tracking Pads (entrance) Tracking Pads (on-lot) Silt Fence Intel Protection Sediment Risers Battle Walls	N	Reser AGRES 8.1	Lot *62	8+0 30m20160 5/27 8+0 30m20160 5/27	Attached  Y N Y N Y N Y N Y N Y N
Tracking Pads (entrance) Tracking Pads (on-lot) Silt Fence Intel Protection Sediment Risers Battle Walls Skimmer	- GGGGG- - GGGG- - GGGG- - GGGG- - GGGG- - GGG- - GGG-	Reser AGRES 8.1	Lot *62	8+0 30m20160 5/27 8+0 30m20160 5/27	Attached  Y N Y N Y N Y N Y N Y N Y N
Tracking Pads (entrance) Tracking Pads (on-lot) Silt Fence Inlet Protection Sediment Risers Battle Walls Skimmer Stone Fifters	3 < 3 < 3 < 3 < 3 < 3 < 3 < 3 < 3 < 3 <	Reser AGRES 8.1	Lot *62	8+0 30m20160 5/27 8+0 30m20160 5/27	Attached  Y N Y N Y N Y N Y N Y N Y N Y N
Tracking Pads (entrance) Tracking Pads (on-lot) Silt Fence Inlet Protection Sediment Risers Battle Walls Skimmer Stone Fifters Rip Rap Aprons	33 × 33 × 33 × 33 × 33 × 33 × 33 × 33	Reser AGRES 8.1	Lot *62	8+0 30m20160 5/27 8+0 30m20160 5/27	Attached  Y N Y N Y N Y N Y N Y N Y N Y N Y N
Tracking Pads (entrance) Tracking Pads (on-lot) Silt Fence Inlet Protection Sediment Risers Battle Walls Skimmer Stone Fifters	3 < 3 < 3 < 3 < 3 < 3 < 3 < 3 < 3 < 3 <	Reser AGRES 8.1	Lot *62	8+0 30m20160 5/27 8+0 30m20160 5/27	Attached  Y N Y N Y N Y N Y N Y N Y N Y N

Storie i troto	
Rip Rap Aprons	(Y) N
Silt Bay	X (B)
Temp./Perm. Stabilization	₩ N
Dust Control	
OUTSTANDING ITEMS FROM PREVIOUS INSP.:	Y N if Y, please describe
ADDITIONAL COMMENTS:	CLEAN -OUT MOND BASIN # 2 A THER CONCRETE CLEAN -OUT DONE CUA SCHOULD

co: EROSION CONTOL FILE COMMUNITY MGR.

# **SECTION 308 RESPONSE FORM**

Project/Property Name: Woods at Northampton  Property Location: 46 Sienna Circle  Ivyland, PA  Legal Name of Entity Undertaking Development: K. Hovnanian at Northampton, LLC  Address: 1170 Wheeler Way, Suite 200  Langhorne, PA 19047  Telephone Number: 215-478-9400  CEO: Barry Edelman: See General Objection "L"  Relationship to Hovnanian Enterprises, Inc.: See General Objection "M"  Responsibility for Project (Owner, Developer, Contractor, etc.) Developer  Date of commencement of construction activity: 3/2003  Current stage of construction: Paving, Building Construction  If earth disturbance activities are completed, date of completion: N/A  Date of local/county approval for erosion and sediment control: 6/25/2001; 3/17/2003  Copy of local/county approval attached? Yes No (If "yes," see Attachment 1)  NPDES Permit No.: PAR10D526  Date of NPDES Permit: 2/6/2001  Copy of NPDES Permit attached? Yes No (If "yes," see Attachment 2)  Copy of signed NPDES application attached? Yes No (If "yes," see Attachment 3)
Legal Name of Entity Undertaking Development: K. Hovnanian at Northampton, LLC  Address: 1170 Wheeler Way, Suite 200  Langhorne, PA 19047  Telephone Number: 215-478-9400  CEO: Barry Edelman; See General Objection "L"  Relationship to Hovnanian Enterprises, Inc.: See General Objection "M"  Responsibility for Project (Owner, Developer, Contractor, etc.) Developer  Date of commencement of construction activity: 3/2003  Current stage of construction: Paving, Building Construction  If earth disturbance activities are completed, date of completion: N/A  Date of local/county approval for erosion and sediment control: 6/25/2001; 3/17/2003  Copy of local/county approval attached? Yes No (If "yes," see Attachment 1)  NPDES Permit No.: PAR10D526  Date of NPDES Permit: 2/6/2001  Copy of NPDES Permit attached? Yes No (If "yes," see Attachment 2)
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Telephone Number: 215-478-9400 CEO: Barry Edelman; See General Objection "L" Relationship to Hovnanian Enterprises, Inc.: See General Objection "M" Responsibility for Project (Owner, Developer, Contractor, etc.) Developer  Date of commencement of construction activity: 3/2003 Current stage of construction: Paving, Building Construction If earth disturbance activities are completed, date of completion: N/A  Date of local/county approval for erosion and sediment control: 6/25/2001; 3/17/2003 Copy of local/county approval attached? Yes No (If "yes," see Attachment 1)  NPDES Permit No.: PAR10D526 Date of NPDES Permit: 2/6/2001 Copy of NPDES Permit attached? Yes No (If "yes," see Attachment 2)
CEO: Barry Edelman; See General Objection "L"  Relationship to Hovnanian Enterprises, Inc.: See General Objection "M"  Responsibility for Project (Owner, Developer, Contractor, etc.) Developer  Date of commencement of construction activity: 3/2003  Current stage of construction: Paving, Building Construction  If earth disturbance activities are completed, date of completion: N/A  Date of local/county approval for erosion and sediment control: 6/25/2001; 3/17/2003  Copy of local/county approval attached? Yes No (If "yes," see Attachment 1)  NPDES Permit No.: PAR10D526  Date of NPDES Permit: 2/6/2001  Copy of NPDES Permit attached? Yes No (If "yes," see Attachment 2)
Relationship to Hovnanian Enterprises, Inc.: See General Objection "M" Responsibility for Project (Owner, Developer, Contractor, etc.) Developer  Date of commencement of construction activity: 3/2003  Current stage of construction: Paving, Building Construction  If earth disturbance activities are completed, date of completion: N/A  Date of local/county approval for erosion and sediment control: 6/25/2001; 3/17/2003  Copy of local/county approval attached? Yes No (If "yes," see Attachment 1)  NPDES Permit No.: PAR10D526  Date of NPDES Permit: 2/6/2001  Copy of NPDES Permit attached? Yes No (If "yes," see Attachment 2)
Responsibility for Project (Owner, Developer, Contractor, etc.) Developer  Date of commencement of construction activity: 3/2003  Current stage of construction: Paving, Building Construction  If earth disturbance activities are completed, date of completion: N/A  Date of local/county approval for erosion and sediment control: 6/25/2001; 3/17/2003  Copy of local/county approval attached? ✓ Yes ☐ No (If "yes," see Attachment 1)  NPDES Permit No.: PAR10D526  Date of NPDES Permit: 2/6/2001  Copy of NPDES Permit attached? ☐ Yes ☒ No (If "yes," see Attachment 2)
Current stage of construction: Paving, Building Construction  If earth disturbance activities are completed, date of completion: N/A  Date of local/county approval for erosion and sediment control: 6/25/2001; 3/17/2003  Copy of local/county approval attached? Yes No (If "yes," see Attachment 1)  NPDES Permit No.: PAR10D526  Date of NPDES Permit: 2/6/2001  Copy of NPDES Permit attached? Yes No (If "yes," see Attachment 2)
Current stage of construction: Paving, Building Construction  If earth disturbance activities are completed, date of completion: N/A  Date of local/county approval for erosion and sediment control: 6/25/2001; 3/17/2003  Copy of local/county approval attached? Yes No (If "yes," see Attachment 1)  NPDES Permit No.: PAR10D526  Date of NPDES Permit: 2/6/2001  Copy of NPDES Permit attached? Yes No (If "yes," see Attachment 2)
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Date of local/county approval for erosion and sediment control: 6/25/2001; 3/17/2003 Copy of local/county approval attached? ✓ Yes ☐ No (If "yes," see Attachment 1)  NPDES Permit No.: PAR10D526 Date of NPDES Permit: 2/6/2001 Copy of NPDES Permit attached? ☐ Yes ☒ No (If "yes," see Attachment 2)
Copy of local/county approval attached?  Yes  No (If "yes," see Attachment 1)  NPDES Permit No.: PAR10D526  Date of NPDES Permit: 2/6/2001  Copy of NPDES Permit attached?  Yes  No (If "yes," see Attachment 2)
Copy of local/county approval attached?  Yes  No (If "yes," see Attachment 1)  NPDES Permit No.: PAR10D526  Date of NPDES Permit: 2/6/2001  Copy of NPDES Permit attached?  Yes  No (If "yes," see Attachment 2)
NPDES Permit No.: PAR10D526  Date of NPDES Permit: 2/6/2001  Copy of NPDES Permit attached? □ Yes ☑ No (If "yes," see Attachment 2)
Date of NPDES Permit: 2/6/2001 Copy of NPDES Permit attached?    Yes  No (If "yes," see Attachment 2)
Copy of NPDES Permit attached?  Yes No (If "yes," see Attachment 2)
•••
Copy of signed NPDES application attached? Yes \( \subseteq \) No (If "yes," see Attachment 3)
Copy of periodic self-inspection reports attached?  Yes  No (If "yes" see Attachment 4)
Explanation of reasons why no NPDES permit if applicable: N/A
Name of receiving water and location of stormwater discharge: Tributary to Little Neshaminy Creek
If discharge to a storm sewer, name of municipal operator, location of discharge into storm sewer, and name of receiving water (if known) N/A
Additional Information

p.2 P. 2



### BUCKS COUNTY CONSERVATION DISTRICT

924 TOWN CENTER NEW BRITAIN, PA 18901-5182 (215) 345-7577 Fax (215) 345-7584

June 25, 2001

Hovnanian Inc. 301 Oxford Valley Road **Suite 1503** Yardley, PA 19067

SUBJECT:

WOODS @ NORTHAMPTON

TMP # 31-5-19.

TOTAL ACRES: 139.97 ACRES T.B.D. 87.67

LOCATION: JACKSONVILLE ROAD

DATE OF PLAN: 5/21/01 SHEET(S): 1, 12-15, 33-40, 64, 68 OF 72

NORTHAMPTON TOWNSHIP, BUCKS COUNTY, PA

### Dear Sir or Madam:

This is a review by the Bucks County Conservation District (BCCD) of the erosion and sediment pollution control plan created for the above mentioned site. Any revisions made to these approved drawings must be submitted to BCCD for review and approval.

The plan appears to remain ADEQUATE with comments for crossion and sediment pollution control and meets the minimum requirements of the Pennsylvania Department of Environmental Protection (Pa, DEP) Rules and Regulations, Chapter 102, Erosion Control, relating to the Pennsylvania Clean Streams Law.

### COMMENTS:

- 1. A pre-construction meeting is requested by the BCCD prior to any earthwork being done on the site. Call the inspector listed below in the ce list.
- No earthwork can be done until the Joint Permit and any other pertinent permits have been issued by the appropriate agencies.

The BCCD requires a notification of 3 working days prior to site disturbance in order that we may perform the necessary erosion and sediment pollution control inspections. Failure to begin earthmoving within two (2) years will require a resubmission of the crosion and sediment pollution control plan.

Karen A. Mahon

Erosion and Sediment Control Specialist

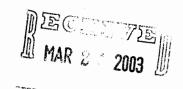
### KAM/kam

/E&S File/Municipal File/BCPC Northampton, Township Supervisor /Northampton, Township Engineer /Eric Wightman, BCCD Site Inspector /Showalter & Associates, 116 E. Butler Ave, Chalfont, PA 18914

### **BUCKS CONSERVATION DISTRICT**



924 TOWN CENTER NEW BRITAIN, PA 18901-5182 (215) 345-7577 Fax (215) 345-7584



Hovnanian Inc. 301 Oxford Valley Rd., Suite 1503 Yardley, PA 19067

SUBJECT:

THE WOODS AT NORTHAMPTON

TMP # 31-5-19

PLAN DATED: 7/15/02

SHEET(S): 1, 12-15, 33-40, 64, 68, 69 of 72

TOTAL ACREAGE: 139.97

ACRES T.B.D.: 87.67

LOCATION: JACKSONVILLE RD.

NORTHAMPTON TOWNSHIP, BUCKS COUNTY, PA

### Dear Sir or Madam:

This is a review by the Bucks County Conservation District (BCCD) of the erosion and sediment pollution control plan created for the above referenced site. Any revisions made to these approved plans must be submitted to BCCD for review and approval.

The plan appears to remain Adequate for erosion and sediment pollution control and meets the minimum requirements of the Pennsylvania Department of Environmental Protection (PA.DEP) Rules and Regulations, Chapter 102 Erosion Control, relating to the Pennsylvania Clean Streams Law.

BCCD requires a notification of three (3) working days prior to site disturbance in order to perform the necessary erosion and sediment pollution control inspections. As the erosion and sediment pollution controls are implemented, they must be maintained and checked frequently. Failure to begin earthmoving within two (2) years will require a resubmission and review of the erosion and sediment pollution control plan.

If you have any questions regarding this letter, contact the BCCD office at the above phone purpler.

Respectfully,

Karen A. Mahon

Certified E&S Control Professional

cc:

/E&S/municipal/bcpc files

/Northampton Township Supervisor /Northampton Township Engineer

/Eric Wightman, BCCD Site Inspector

/Showalter & Associates, Inc., 116 E. Butler Ave., Chalfont, PA 18914



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER QUALITY PROTECTION

PARIOD 526
------------

OFFICIAL USE ONLY NPDES Permit # PA\_

SIC Code: CO

## NOTICE OF INTENT (NOI) FOR COVERAGE UNDER THE PENNSYLVANIA GENERAL PERMIT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (PAG-2)

APPLICATION TYPE (CHECK ONE):		B. FACILITY OV	VNER NAME:	
NEW  RENEWAL OF PERMIT #		CECE	LIA RECKLI	TIS
OPERATOR(S) NAME(S): (If more HOVNANIAN PENNS) MAILING ADDRESS AND TELEPHO	LVANIA, INC.	117 7	DORESS AND TELEPHONE SACKSON VILLE ND PA 189- DICATION:	_
301 OXFOLD VALI SUITE 1503 YARDLEY, PA 1	EY RA,	Country 7	: <u>Nor-пнамрло</u> Зискs	N TWP.
APPLICANT STATUS: OWN			X	PEOFINE
FACILITY TYPE: FEDERAL D	STATE D PRIVATE	E X PUBLIC []	OTHER D Please	RECEIVEL
THE WOODS AT	,	LATITUDE - LONGITUDI U.S.G.S. QU	ATITUDE/LONGITUDE:  75 / 3 / 30.5  E · 40 / 13 / 15  AD NAME: HATRO  site on U.S.G.S. map and	Po BCCD  Ro  attach to this application.
QUANTITATIVE DATA (SUBMIT A	LL EXISTING DATA, USE SEE	PARATE SHEET IF NECES	SARY):	
POLLUTANT	CONCENTRATION w/Units	SOURCE	SAMPLE TYPE	DATE(S)/NUMBER OF SAMPLES
)				
)				·
STORMWATER DISCHARGES TO:	LTH X MUNICIPAL	SEPARATE STORM SEW	ER [] PRIVA	TE STORM SEWER
RECEIVING WATER/WATERSHED  Z TRIPS, TO  LITTLE NESHAMIN  CHAPTER 93 RECEIVING WATER CLASSIFICATION:	OPERATOR:	CIPAL STORM SEWER	NAME OF PRIV OPERATOR:	ATE STORM SEWER
WWF, MF				
. DESCRIPTION OF PROJECT: 84 LOT RES	IDENTIAL S	DUBDIVISION		KHOV0658
LIST EXISTING AND PREVIOUS U  UNUSED OPEN				Attachment 2
L. SIZE OF TOTAL DEVELOPMENT	ACRES): 139,47		TOTAL DISTURBED (A	ACRES): 87.67
\$25000C	K# 2V014	36		- PD

ESTIMATED T	IME TABLE FOR MAJOR CONSTRU	JCTION ACTIVI	TIES (TOTAL YEARS)	): *ATTACH SEPA	RATE SHEET, IF NECES	SSARY.
PHASE NO. OR NAME	DESCRIPTION		TOTAL ACRES	DISTURBED ACRES	START DATE	END DATE
	84 LOT SUBBIN	MOISI	139,41	87.67	SPR 2001	FALL 2002
				,		
	SE AND/OR STORE CHEMICALS, SO POLLUTION DURING EARTH DIST					TIAL TO CAUSE
	×	511011111111111				
	ining, Preparedness and Continge	ncy (PPC) Plan	is required in accor	dance with 25 Pa.	Code).	
	OSION AND SEDIMENT AN PREPARER:	QUALIFICAT	ION OR JOB TITLE:	e.,.		
ANDREA		PIVIL	ENGINEER	2		
COMPANY	-		ID TELEPHONE NO .:			
SHOWAL	TER 4 ASSOC.		ONT, PA			
P. CERTIFICATI	ON:					
activities an Contingency accordance aware that knowing vic	ereinabove is eligible for covera d that the Best Management Pray Plans, and other stormwater powith general permit requirementhere are significant penalties folations.  OFFICIAL TITLE (OWNER):	ctices (BMPs), ollution preve ts and to ensu or submitting	including Erosion a ntion and minimiza are that water qual	nd Sediment Cont ition strategies are lity standards and	rol Plans, Preparedn e designed, installed effluent limitations	ess, Prevention, and I and maintained in I are attained. I am
SIGNATURE	: LIA RECKLITIS (OI				re signed:	1)
	OFFICIAL TITLE (OPERATOR):	where)	<del></del>	<i>L</i>	1-3-	
DENNE	P. LA PUSAN	-			•	
TONATURE	ue Faul du			DA	TE SIGNED: 3.29.00	
NOTARIZAT	LION		COMMONWEALT	HOFPENNSYLVAN	NIA	
SWORN TO	AND SUBSCRIBED TO BEFORE ME	•	<del></del>	100000		
	affe of Gill	<u> </u>	, <u>2000</u> N	1Y COMMISSION E		
	Notary Jublic			March	18, 200	2-
	pleted By Appropriate Conservat HITIAL PLAN SUBMITTAL: 4/7/		Regional Office) ER		,	NS DRIZED: 12/2000
SIGNATUR	E OF AUTHORIZED REPRESENTATI	VE OF THE AP	PROPRIATE CONSER	VATION DISTRICT	:	
Signature	15 July	Name	and Official Title	District	harst-	Date 2/3/41
					k	XHOV0659

K. HOVN. JIAN-E	&S SELF INSPECT	TION REPORT		WX =2
PROJECT NAME:	Woods at	North upton		
LOCATION:	Northunten	Bucks	PA	
DATE OF INSPECTION:	3/20/05	county 	state	
TYPE OF INSPECTION:	WEEKLY:		APPROVED E&S PLAN ON SIT	E: yes no D
	MONTHLY: POST STORM EVE	□ <b>NT</b> : □ ·	NPDES Permit on Site: yes	no B
INSPECTION PERFORME	ED BY:	larry letz		
WEATHER Acloude	1 45-58°	/		

WEATHER:	Actordy	45-58
E&S Control	Measures	Used on

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	_	graphs ched
Tracking Pads (entrance)	Ø N	refush	Exerce to Sh. 4	schediled Contrator		4
Tracking Pads (on-lot)	Ø N	reforsh	all lots under construction	Notified CM.	<b>⇔</b>	N
Silt Fence	Ø N	recuir	Throsport & 3.	scheduled artificator	Y	N
Inlet Protection	Ø N	reacur / Jonestall	Proses 243	7 11	1	<b>(D)</b>
Sediment Risers	(X) N				Υ	N
Baffle Walls	ØN				Y	N
Skimmer	Y (1)				Y	N
Stone Filters	Y				Y	N
Rip Rap Aprons	Ø N				Υ	N
Silt Bag	Y				Y	Ν
Temp./Perm. Stabilization	N	,			Υ	N
Dust Control					Υ	Ν
OUTSTANDING ITEMS FROM PREVIOUS INSP.:	Y N if Y, please describe					
ADDITIONAL COMMENTS:	MYS Except Thets in p	the 3 times for his tock. Inch. tock.	week. Left Videnceming pads. Intelligent protection	ico (c.m.) will sched	ne on a	11

cc: EROSION CONTOL FILE COMMUNITY MGR.

ALL FORMS SHOULD BE FAX TO 215-357-7725

CWC 3/30/05

K. HOVN NIAN- E	S SELF INSPEC	TION REPORT		(,	WNH Z	
PROJECT NAME:	Woods at	Nor thanster	,			
LOCATION:	Northauster	Bicks	Pa			
DATE OF INSPECTION:	4/4/05 SWP	county	state			
TYPE OF INSPECTION:	WEEKLY: MONTHLY:	0	APPROVED E&S PLAN ON SITE: yes 5 no 0	<u>.</u>		
	POST STORM EVE	ENT: B	NPDES Permit on Site: yes  no			
INSPECTION PERFORME	D BY:	larry lote				

WEATHER: Clarly 41-60°

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance)	(8) N				YN
Tracking Pads (on-lot)	N	rehesh as needed	all loss order const.	Notitied C-M.	Y
Silt Fence	Ø N				YN
Inlet Protection	(Ý) N	repair/replace	Phase 3	contractor on site peper	SIXON N
Sediment Risers	Ø N	1 9000			1 14
Baffle Walls	(V) N				YN
Skimmer	Y Ø				YN
Stone Filters	Y DD				YN
Rip Rap Aprons	Ø N				YN
Silt Bag	YAN				YN
Temp./Perm. Stabilization	PY) N				YN
Dust Control					YN
OUTSTANDING ITEMS FROM PREVIOUS INSP.:	if Y, please describe		,,		
ADDITIONAL COMMENTS:	Havy rain o	n but. 4/2/05 2.6 Ding bediment from	n around inters a	tols held up well. ud from raidways.	

cc: EROSION CONTOL FILE COMMUNITY MGR.

ALL FORMS SHOULD BE FAX TO 215-357-7725

lucatilas

K. HOVN NIAN-E	&S SELF INSPECTION	REPORT		WNH( -
PROJECT NAME:	Woods at Nov	Therestar		
LOCATION:	No thoughan	Bucks	PA	
DATE OF INSPECTION:	418/05	county	state	
TYPE OF INSPECTION:	WEEKLY:		APPROVED E&S PLAN ON SITE:	yes 🗹 no 🛘
	MONTHLY:   POST STORM EVENT:		NPDES Permit on Site: yes	no 🗆

INSPECTION PERFORMED BY:

E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photograph Attached
Tracking Pads (entrance)	Y D				YN
Tracking Pads (on-lot)	Ø N				YN
Silt Fence	Ø N	Add. fence needed	Bean "D"	schediled installation	Y 🐠
Inlet Protection	Ø N	replace / repar lingall	Phise 3 x4	4	Y
Sediment Risers	Ø N	replice stene fiter	Bash D'	9 4	W 20
Baffie Walls	Ø N				YN
Skimmer	Y DD				XN
Stone Filters	N N	motall new	and Bean D' Suale pl	W 68 1	(V) AS
Rip Rap Aprons	W N	Install @ Ew 6	line Bean D' Suale el	4	YO
Silt Bag	Y				YN
Temp./Perm. Stabilization	Y N				YN
Dust Control					Y N
OUTSTANDING ITEMS	YN	,			
FROM PREVIOUS INSP.:	if Y, please describe				
	CVA WORKIN	15 on Paving In	Phase 4. should be	e coupleted by	
ADDITIONAL COMMENTS:	Thurs 4/21.	Will begin crossen	control week is	pe coupleded by phose 4 immediately to at lot 68. New	Y
	afferwards	. Installed Home	filters in Swall	le at lot 68. New	ed to
ROSION CONTOL FILE	replied lining				6

COMMUNITY MGR.

ALL FORMS SHOULD BE FAX TO 215-357-7725

KHOV0662

K. HOVNANIAN- ¿&S	SELE INSPEC	TION REPORT		,	WHA
PROJECT NAME:		No Howe Seen	1		
LOCATION:	Northwesta	Bucks county	Fa		
DATE OF INSPECTION:	4/10/05		state		
TYPE OF INSPECTION:	WEEKLY: MONTHLY: POST STORM EVE		APPROVED E&S PLAN ON SITE		
INSPECTION PERFORMED B	BY:	long lota	THE DESTRUMENT ONCE.		,
WEATHER: (161 45	- 64				
E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Photographs Attached
Tracking Pads (entrance)	Y 🔊				YN
Tracking Pads (on-lot)	Ø N				YN
Silt Fence	(X) N		1 1		YN
Inlet Protection Sediment Risers	N N	Clan Gedment accomole	te Pluse 3x4	Schedel Curtosto	Y (N)
Baffle Walls	M N	reació	Bean A x B	applied outrace	Y DO
Skimmer	Y 00	rgan	wan n r	2222	YN
Stone Filters	₩ N				YN
Rip Rap Aprons	N N	In Hall	Endutill F-6	bullite Contracted	YO
Silt Bag	Y 80		1 1		Y
Temp./Perm. Stabilization	Ø N	pule 17 at lot 68 54	philips those 4	Scheduled Custocotor	YOU
Dust Control		bout '			YN
OUTSTANDING ITEMS FROM PREVIOUS INSP.:	Y N if Y, please describe				
	PYM whel	illed to do intet	protection and s	well #7 week of	5/2/05
ADDITIONAL COMMENTS:	Cus (6 )	rufall sil rap cot	Few Feb and	repair buffles u	eel

ROSION CONTOL FILE OMMUNITY MGR.

		roted	ona	n inspect	& report	from	Bucks	condy	anservat
<b>x</b>	COMMUNITY MGR.			ALL	FORMS SHOULD BE FA	AX TO 215-35	7-7725	64	HZSTOS K. Hanan
H								ľ	Cotto
7									
9 0									
64									

PROJECT NAME:	Woods o	of Northau	A h	-
FROSECT NAME.	ways c	Norman	Test	
LOCATION:	Northauska	Bucks	Pa	
DATE OF INSPECTION:	5/5/05	county	state	,
TYPE OF INSPECTION:	WEEKLY:		APPROVED E&S PLAN ON SITE: yes	no 🗆
	MONTHLY:	ם		
	POST STORM EVE	<b>NT</b> : □	NPDES Permit on Site: yes ☑ no □	
INSPECTION PERFORMI	ED BY:	Larry Lutz	· ·	
WEATHER: PLANE	36-63	•		

			1		Photographs
E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Attached
Tracking Pads (entrance)	YN			·	YN
Tracking Pads (on-lot)	Ø N				YN
Sitt Fence	N N		Executal F-6	Installed By Confector	Ø N
Inlet Protection	(Ý) N				YN
Sediment Risers	N/N				YN
Baffle Walls	N (g)				YN
Skimmer	Y (N)				YN
Stone Filters	(V) N				YN
Rip Rap Aprons	Ø N				YN
Silt Bag	Y (N)				YN
Temp./Perm. Stabilization	(P) N		Surile 57 Miset	Mathin and some history	Y N
Dust Control				In Hallad by Butade	(Y) N
OUTSTANDING ITEMS FROM PREVIOUS INSP.:	N if Y, please describe		Few File and M Fic. They are such		45: 5/6/05
ADDITIONAL COMMENTS:	Buxle 5-7 Matter Uso	in phase 4 at . would share fix an inspection we	less in suple au	d with seed hud d at Endwall. This can by Anservate	nes - Nedec

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PROJECT NAME:	Woods C	Northanpy	<b>4</b> _ \	•	
	Nathapta	Bucks	Pe.		
DATE OF INSPECTION:	5.10.05	county	'state		
TYPE OF INSPECTION:	WEEKLY:	4	APPROVED E&S PLAN ON SIT	TE: yes 10 10	
	MONTHLY: POST STORM EVE	□ :NT·m	NPDES Permit on Site: yes &		
	POST STORM EVE		NPDES Fermit On Site. Yes t		
NSPECTION PERFORMED	BY:	Jett ).	<del></del>	·	
WEATHER: _ clear	-				
TEATILE. Crear				,	
					Photographs
E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Attached
		110		•	YN
Tracking Pads (entrance)	I Y (N)	11/14	1		1 1
Tracking Pads (entrance) Tracking Pads (on-lot)	Y N Y N	NA			YN
Tracking Pads (on-lot) Sit Fence	(Ý) N		(of # 22 new);	Pam cated	Y N Y (N)
Tracking Pads (on-lot) Sitt Fence Inlet Protection	2 Z	Kes .	101 # 72 news	pam catal	Y N Y N
Tracking Pads (on-lot) Stit Fence Inlet Protection Sediment Risers	N N			pam catal	Y N Y N Y N
Tracking Pads (on-lot) Sitt Fence Inlet Protection Sediment Risers Baffle Walls				pam catal	Y N Y N Y N Y N
Tracking Pads (on-lot) Sift Ferice Inlet Protection Sediment Risers Baffle Walls Skimmer	2 z z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z			pam catal	Y N Y N Y N Y N Y N
Tracking Pads (on-lot) Sitt Ferice Inlet Protection Sediment Risers Baffle Walls Skimmer Stone Filters				pam catal	Y N Y N Y N Y N Y N Y N
Tracking Pads (on-lot) Sift Ferice Inlet Protection Sediment Risers Baffle Walls Skimmer	2 z z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z			pam catado	Y N Y N Y N Y N Y N Y N
Tracking Pads (on-lot) Sitt Ferice Inlet Protection Sediment Risers Baffle Walls Skimmer Stone Filters Rip Rap Aprons Sitt Bag	SS z z z z z z z z z z z z z z z z z z			pam catado	Y N Y N Y N Y N Y N Y N
Tracking Pads (on-lot) Sitt Fence Inlet Protection Sediment Risers Baffle Walls Skimmer Stone Filters Rip Rap Aprons	\$\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\frac{1}{2}\$\fra			Pam Catado	Y N Y N Y N Y N Y N Y N Y N
Tracking Pads (on-lot) Sitt Ferice Inlet Protection Sediment Risers Baffle Walls Skimmer Stone Filters Rip Rap Aprons Sitt Bag	32 z 25 z z z z z z z z z z z z z z z z z			Pam Catado	Y N Y N Y N Y N Y N Y N Y N Y N
Tracking Pads (on-lot) Sitt Fence Inlet Protection Sediment Risers Baffle Walls Skimmer Stone Filters Rip Rap Aprons Sitt Bag Temp./Perm. Stabilization	32 z 25 z z z z z z z z z z z z z z z z z			pam catado	Y N Y N Y N Y N Y N Y N Y N Y N Y N

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CC: EROSTON CONTOL FILE COMMUNITY MGR.

K. HOVNANIAN- E&S	SELF INSPECT	ION REPORT		)	
PROJECT NAME:	Wands e	Northe-ptu-	1		
LOCATION:	) addepta	Bucks	<u>Le</u> .		
DATE OF INSPECTION:	5.76.05	_ county	/state		
TYPE OF INSPECTION:	1100.01	<u> </u>	APPROVED E&S PLAN ON SIT	ſE: yes ⊿no □	
	MONTHLY: [ POST STORM EVE	NT· D	MDDEC Domit on Cito: you #	A St	
	POSI STORM EVE		NPDES Permit on Site: yes	1 DO 10	
INSPECTION PERFORMED	BY:	1014 N.	,		
WEATHER: C/e	_				·
WEATHER	<u>~</u>				
					Photographs
E&S Control Measures	Used on Site	Maintenance Needed	Location of Repairs Needed	Action Taken	Attached
Tracking Pads (entrance)	Y 66				YN
Tracking Pads (on-lot)	(V) N				YN
Sit Fence	⊗ N				YN
Inlet Protection	(C N				Y N
Sediment Risers	Ø N				YN
Baffle Walls	SP N				YN
Skimmer	YOU				YN
Stone Filters	Q) N				YN
				***************************************	YN
Rip Rap Aprons	G N				
Sitt Bag	Y (N)				YN
					YN
Sitt Bag	Y (N)				
Sift Bag Temp./Perm. Stabilization	Y (N)				YN